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SOUTHERN TEXTILE BULLETIN

VOLUME 27 CHARLOTTE, N. C., THURSDAY, SEPTEMBER 4, 1924 NUMBER 1

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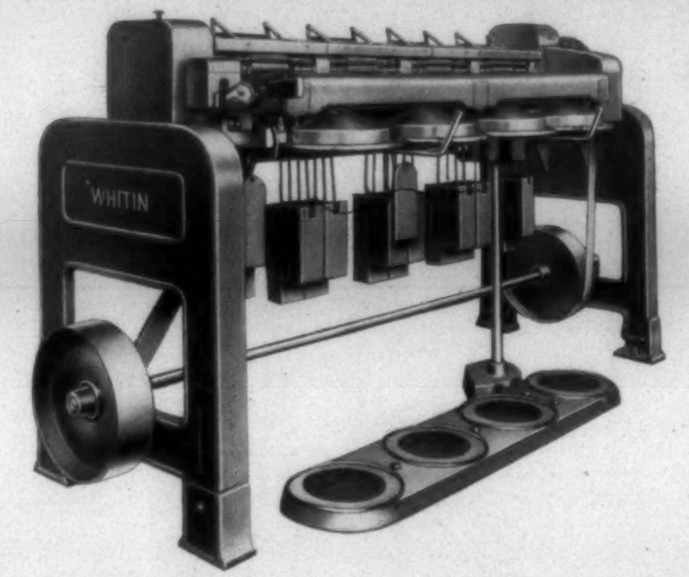

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An Advertisement by Chas. E. Carpenter

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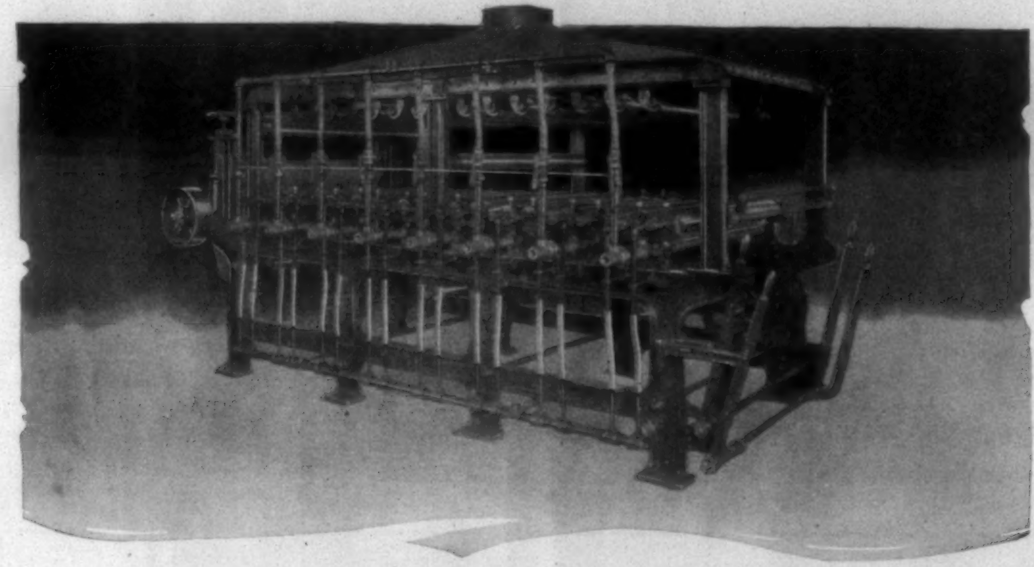

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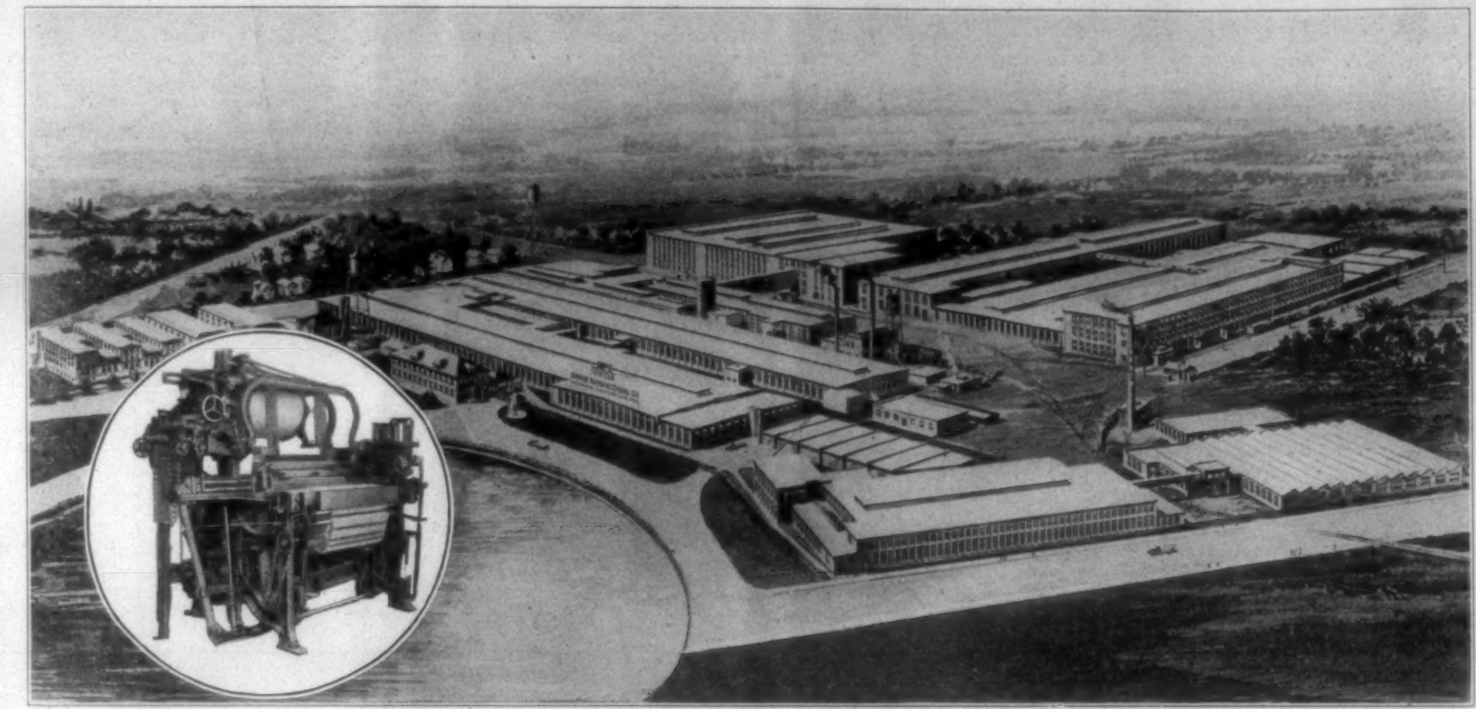

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VOLUME 27 CHARLOTTE, N. C., THURSDAY, SEPTEMBER 4, 1924 NUMBER 1

Research in the Cotton Industry

Address of Arthur W. Crossley, Director of the British Cotton Industry
Research Association, at the Empire Textile Conference at
Wembley, England.

THE Research Associations, of which the British Cotton Industry Research Association is one, may be said to be the direct outcome of a conviction which became firmly established in the minds of the inhabitants not only of this country, but of the whole British Empire, during the years 1917-18. It was realized by all that the application of science to the task then in hand was of paramount importance, in fact, an absolute necessity. Nor did science fail to respond to the many calls made upon it, but proved abundantly its value in helping to bring the task to which it was applied to a successful issue. The lessons learned in those anxious years have unfortunately been largely forgotten, though in reality there is more than ever need for applying science and scientific method to the solution of every-day problems, and especially in the case of the great manufacturing enterprises of the Empire. Unless new knowledge is sought and rigorously applied to the furtherance and development of our trades we are certain to fall behind other nations, and our manufactures will suffer blows from which they may never recover. In no instance does this apply more strongly than in that of the cotton industry, where for future success it is essential that all parts of the Empire should come together with the object of considering what co-operation between the grower and the manufacturer of cotton can do to further the interests of this trade, which is of such vast importance for the welfare of the Empire.

Empire Grown Cotton Has Become a Necessity.

The cotton trade has recently been through, and has not yet completely emerged from, one of the greatest, if not the greatest, struggle which it has ever had to face. This cannot be entirely attributed to any single cause, but one of the most important is undoubtedly the notable shortage of raw material, purchasable at a price which enables manufacturing to be carried on without loss, if not with actual profit. Until comparatively recent years, Great Britain has been entirely dependent on the United States of America and Egypt (neither within the Empire) for her supplies of cotton, and it is now obvious that these sources cannot be relied upon to supply the future requirements of Lancashire. Empire-grown cotton has become a necessity, and it can only be hoped that the British Cotton Growing Association and the Empire Cotton Growing Corporation will succeed in their efforts to secure a supply for future use.

Three Problems.

The research problems of the cotton industry may be classified under three headings, namely:

1. Problems chiefly concerning the grower.
2. Problems of importance to both grower and the user.
3. Problems chiefly concerning the user.

Problems Concerning the Grower.

The problems facing the grower are many and varied, being principally connected with the science of botany, agriculture and entomology. Much research will be necessary to decide upon the most suitable cottons to be grown in the various parts of the Empire; to overcome the ravages due to insect and other pects; and to ensure an adequate supply of pure seed cotton. The efforts of the British Cotton Industry Research Association are in such directions only supplementary to those of the two above-mentioned bodies dealing with cotton growing. It is for the Research Association to keep closely in touch with such work and by experiment to ascertain the properties peculiar to the new Empire-grown cottons and their behavior when passed through the many processes necessary to convert the raw material into finished goods.

Problems of Importance to Grower and User.

It might be considered by some that the foregoing remarks adequately differentiate the relevant activities of the Research Association, and those bodies concerned with cotton growing, and that there is no need for co-operation. In other words, the grower should concern himself with the growing of cotton and the manufacturer with the conversion of the raw material into usable articles, without the one of necessity knowing what the other is doing. Such a suggestion appears to be fundamentally wrong, and that it is essential for the one to take an intelligent interest in the other's business will be evident from a consideration of the following typical examples of problems receiving attention at the Shirley Institute.

In the botanical department a series of researches are in progress dealing with the correlation of the properties of raw cotton with spinning quality. It is too early to say whether the study of the measurable characteristics (e. g., hair weight per centimetre; wall thickness; breaking load, etc.) of raw cotton will give evidence of value regarding its spinning quality. If, however, it can be shown that some correlation is possible, it will be of great importance to both grower and user. The question will receive detailed consideration, and spinning tests will be carried out on all cottons which are examined.

Spinning Tests.

In this connection it may be well to mention that arrangements have recently been completed between the Empire Cotton Growing Corporation and the British Cotton Industry Research Association, whereby the latter body will carry out spinning tests on all samples of cotton submitted by the former. It is not necessary in such cases for the grower to wait until he has a sufficient amount of a raw cotton to place on the market before submitting a specimen for examination, for it is possible to determine the measurable characteristics with a very small amount of material, and an adequate spinning test can be conducted with from three to five pounds of raw cotton. It therefore becomes possible to give valuable information to the grower on varieties of cotton which are as yet only on trial in different parts of the Empire. Such tests do not of necessity give conclusive evidence as to what will happen when the cotton is treated commercially, for there are many factors present in ginning and the mill processes which are not present when a hand-picked cotton is passed through experimental machines. None the less the information so gained must be of assistance in gauging the relative merits of new varieties of cotton.

Removing Impurities From Cotton.

Again the shortage of American cotton has meant that this material is now mixed with cottons with a variety of origins, and this without adequate knowledge of how this mixture may affect the spinning, weaving, bleaching or finishing qualities of the main material. All cottons have not the same staple length, the same number of convolutions in the hair, the same wall thickness, or the same luster. Moreover, the properties of cotton which render it so valuable as a textile material are due to the chemical substance cellulose which forms its main constituent. The cotton hair is a small but very efficient factory producing cellulose in its purest natural form, but there are certain by-products, or waste products, of this plant manufacture which are mixed with the cellulose. For many of the more exacting textile purposes these impurities must be removed or extracted from the raw material by treatment with chemical agents in the technical process known as bleaching. Such chemical treatment can never be entirely free from injurious action on the cellulose itself, and it is therefore the object of the bleacher to employ the mildest chemical treatment compatible with the purification of the cellulose. The actual amount of impurities to be removed varies, however, in different varieties of cotton, and whereas a mild chemical treatment may be sufficient for the bleaching of one type of cotton a much more energetic process may be necessary to produce the same effect in another. Whilst these vxriations in what are called the minor constituents of cotton are small—the wax, for example, varies between 0.3 and 0.6 per cent, the nitrogen between 0.2 and 0.4 per cent, the phosphates between 0.05 and 0.1 per cent—they are nevertheless of great practical importance, because they necessitate variations in the bleaching process if uniform material is to be produced. When, for example, a brown Egyptian cotton is bleached in the same process as the much lighter American cotton, differences in color result unless the process is so energetic as unnecessarily to injure the American cotton. It has now been found that these variations in the minor constituents of cotton are produced to some extent by differences in the environmental conditions of the plant, soil, climate, etc. For example, the properties of the natural wax of a cotton grown in India from American seed were found to resemble those of the wax from Indian rather than that from American cotton. To a considerable extent these properties are also hereditary; for example, a cotton grown in America from Egyptian seed was found to resemble Egyptian cotton more closely than American with respect to a number of its minor chemical constituents, and it is often possible to identify the variety or strain of cotton from purely chemical analyses of the minor constituents.

Nor is there any reason why it should be presumed that all cottons will dye exactly the same in the same dyebath, nor that they will give the same results on mercerizing, calendering or schreinering. Instances are frequently forthcoming of faults, especially in dyed goods, which can only be attributed to the fact that the various raw cottons in the mixture from which the material has been made do not give the same results when submitted to identical bleaching and dyeing operations. This opens up a large field for detailed investigation, which must continually increase as new cottons come on the market, and which is at present the subject of study by the Research Association.

Still another problem falling in this section is the formation of "neps," which when present in cloth, give infinite trouble to the spinner, the weaver, the dyer and the finisher. They are characterized generally by possessing very different dyeing properties from normal cotton; and though it is possible to produce them during manufacture, the grower may also be responsible to a large extent, since they are readily formed from (a) immature or "dead" cotton, (b) pieces of husk and other foreign material, which may result from faulty picking or picking during bad weather conditions. Further, inferior ginning may result in the inclusion of an undue proportion of seed coat.

As a last example, mildew may be mentioned as causing serious trouble to all sections of the trade, in the tendering of the cotton hairs and the modifying of dyeing properties. Surely the growers of cotton should be interested in the facts that mildew in raw cotton may persist at least as far as the gray cloth, and that mildew may be encouraged by the picking of wet cotton and cotton that has already been attacked by mildew in the field.

Though other examples could be quoted, the above should suffice to indicate how essential it is to secure co-operation between the grower and the user of cotton, and it seems of great importance that samples of all experimentally grown cottons, or at all events those which seem likely to be of practical utility should have their qualities and properties and their behavior in the bleaching, dyeing and finishing operations thoroughly investigated and compared with those of cottons already on the market. Such information would certainly be of assistance to the grower in helping him to make his selections, and equally to the manufacturer, who would know exactly how to utilize the cottons when they were purchasable. In fact, a central clearing house for all cotton knowledge seems essential, and will, it is hoped, be provided as an outcome of the intimate relations which exist between the Empire Cotton Growing Corporation and the British Cotton Industry Research Association.

Problems Concerning the User.

In this section the field for research seems almost unlimited and but a few instances of the type of work engaging the attention of the staff of the Shirley Institute can be given.

Cotton Machinery.

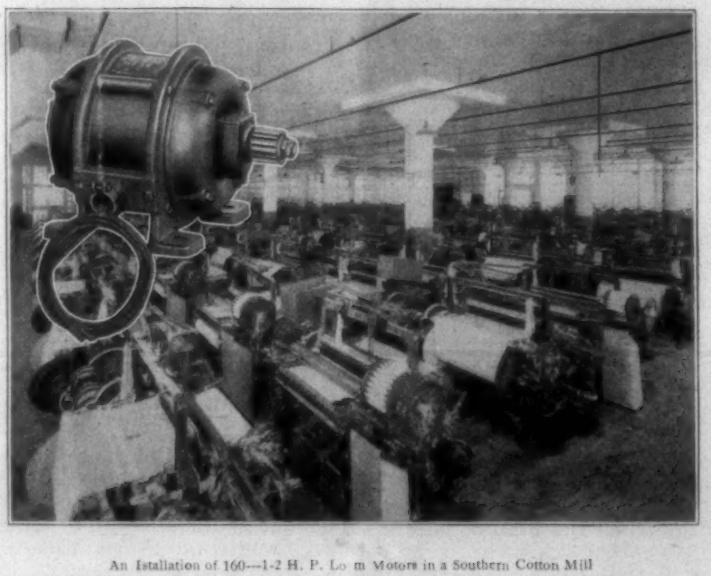
It is considerably more than half a century since any striking new inventions in connection with cotton machinery was introduced. What conclusion is to be drawn from this fact? Does it mean that cotton machinery, which is admitted by all who have seen it to be little short of marvelous in its accomplishments, is incapable of improvement, since perfection has already been reached? The correct answer is provided by a statement recently made by a manufacturer, that "A faultless piece of cotton cloth has never yet been produced." The faults may be ascribed, some, e. g., the presence of neps, to the opening; some, e. g., irregularity of twist, to the spinning, and some to the weaving machinery.

The attitude towards this question adopted by the Research Committee of the Association is not immediately to attempt the improvement of the machines now in existence, but rather first to make a detailed study of the qualities of the raw material which it is desirable to retain in finished goods, and then to try to alter the machines in accordance with the results of such investigations. In other words, to make the machines fill the requirements of the material which they are treating rather than make the cotton of secondary importance to the mechanical efficiency of the machines.

A start in this direction has been made by undertaking a detailed investigation of the carding engine and machines are about to be installed which will enable a study

(Continued on Page 32)

Loom Motors



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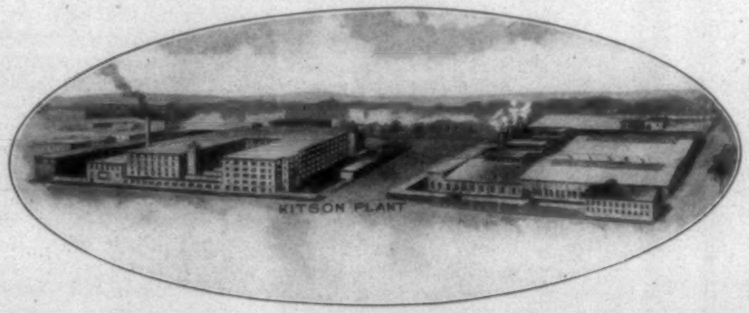

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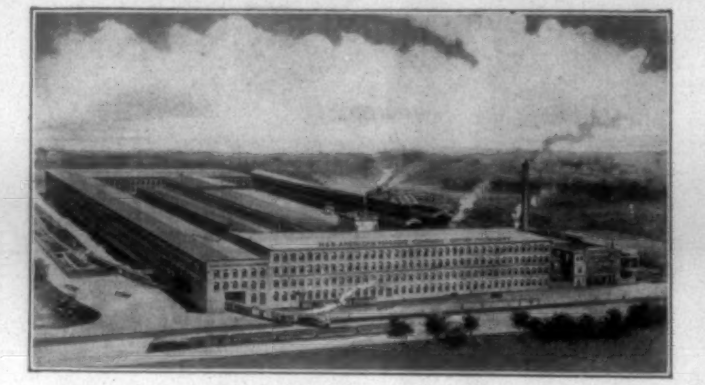

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Construction of Cotton Cloths

By Dixie Weaver.

IT is of the greatest importance that, whenever possible, both the manufacturer and the designer of either woven or knitted fabrics should have prominently before them the ultimate purpose to which the material is to be applied. The purpose should be fully considered before decision is arrived at as to threads per inch, counts of yarn, or particular methods of interlacing the threads, or as to whether it is advisable for either warp or filling to predominate.

There is no doubt that the plain weave forms the foundation of all ancient basket work and textile fabric structure, in which certain strands, usually termed the "warp," and generally shown in a vertically direction, are intersected at right angles, generally termed "filling," when they relate to woven materials. Frequently this plain weave or alternate interlacing has been stated to form the strongest possible structure when the combination is limited to a certain number of strands or threads per square inch, but it is the object at this stage to demonstrate that such a theory must be modified, according to specific conditions and requirements, more particularly as regards resistance to excessive strain, either in the direction of the warp or filling, no matter whether applied to the production of a fabric intended for bookbinding, or to fabric for the manufacture of automobile tires.

The kind of strain or tension which any fabric may have to undergo can be provided for if the purpose to which the fabric is to be applied is known beforehand. For example, during the war, cloth use for the wings of aeroplanes or for balloon fabrics was constructed to bear an equal strain either warp way or filling way, and when the finished article consisted of several folds of fabric solutioned together, some of the layers were cut on the angle so as to bear an equal strain diagonally.

Again in the case of a bag produced from woven canvas and formed with handles, if the bag is fully loaded, besides a pulling strain, there is also a bursting strain exerted; therefore the strands running in both directions must be of sufficient strength to resist the outward pressure. Further, each individual exerts a certain frictional leverage, or cutting strain, upon the strand or thread intersecting it at right angles. This cutting tendency can best be relieved by constructing the fabric with a greater number of strands or threads per inch, and interweaving the warp and filling on what is known as the 4 shaft 2x2 twill principle of structure, or by the 4 shaft crepe weave.

The application of these principles of fabric structure reduces liability to tearing, owing to the fact that the intersections do not occur alternately, as in the plain weave. It must be clearly understood, however, that the reduction of the intersections permits of a greater number of threads to the square inch; therefore, if the reduced intersections are thus compensated for, a fabric of greater density is secured. Of course, if no pulling or bursting strain is likely to be exerted—say, when the fabric is to be used for such a purpose as bookbinding—then the plain weave is the most satisfactorily, especially when an embossed pattern has to be made upon it. When the fabric is to be cut into strips for securing the book backs, however, then an untearable fabric is best.

By far the most important departure from the use of the calico fabric, with object of reducing liability to bursting, breaking or tearing, is that associated with the manufacture of pneumatic tires. In this case the multiple fabric has to resist a pressure of about 80 pounds to the square inch, and it has been found advisable to build up the tire by running rubber solution upon a foundation fabric consisting of a number of multi-folded or cable strands of cotton corded of great strength, and held parallel to each other during the process of solutioning by an occasional pick of filling. The filling does not add to the strength in the slightest degree, and probably becomes severed at the first strain to which the tire is subjected. The whole secret of the combined strength and burst resisting quality of the finished cover is that of the cord threads forming the foundation of the fabric becomes perfectly insulated by the rubber solution, thereby, preventing the internal friction and subsequent heating which in generated when ordinary canveas is used.

In certain cord tires the half-dozen layers of the solutioned fabric forming the foundation are placed diagonally, and at right angles to each other, thereby forming a reinforced flexible base of tremendous strength. It is only fair to acknowledge however, that apart from the few picks per inch holding the corded warp threads parallel, it is really less of a woven texture than an armored sheet of solution.

In between calico or plain cloth and 4 shaft twill there is the three shaft twill weave, in which two-thirds of the warp is always on one side of the fabric. The particular merits of this weave are as follows: (a). Inasmuch as warp yarn is usually harded twisted and stronger than filling yarn, the preponderance of the former on surface which is intended to form the outside of a garment resists the wear and friction more effectually. (b). This weave enables threads of the same diameter to be placed more closely together than is the case with the plain weave; and therefore, when colored threads to form contrasting stripes are introduced for decoration, they present a more solid appearance than would the same threads woven in calico form. (c). As the method of intersection forms a diagonal line, it lends itself to a simple but effective means of ornament by reversing the direction of twill, say every nine, twelve, or more threads, this giving a herring-bone effect. As a means of increas-

(Continued on Page 35)

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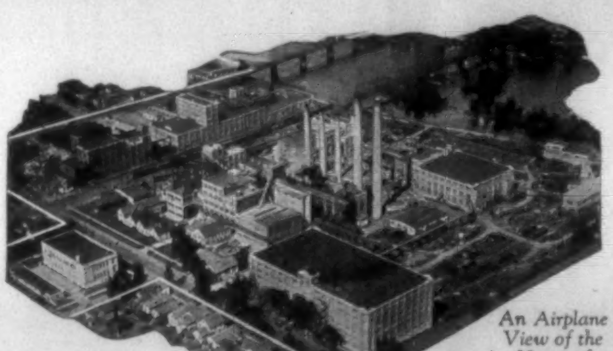

An Airplane View of the Home of Douglas Starch, Cedar Rapids, Iowa

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The Textile Designer's Problem

(By H. D. Martin.)

THE problems of the textile designer are unusually many and intricate. And the progressive man in this line of work has apparently an endless field in which to exercise his ingenuity. The designers of the past have customarily conformed themselves to plain and fancy even yarns, varied sizes of yarns, colored yarns and all kinds of fibres. But the modern progressive designer does not confine himself entirely to the standard conditions of the past. For example during the last couple of years or so quite a few novel designs have been developed by having vacant spaces in the cloth patterns. Strange as it may seem in such cases, the novel effects have been produced without the use of yarns and colors. The vacant spaces producing the pattern. The size, shape and the frequency of the spaces were combined to produce the desired effects. Carrying our statement still further, many effects have even been produced with only yarns and spaces without even weaving them nor of knitting. This was strangely and well proven by the fact that women have appeared on the streets attired with nobby skirts, which were merely made of fibrous strings. These strange skirts were composed merely of strings fastened to a belt and which hung from the waist down to a skirt length. This novel attire draped the female figure handsomely as an over-skirt. The underskirt being made of very bright colored material. It can therefore be seen that even weaving can be dispensed with to a certain extent in the production of various designs.

If a designer knows how, he can even produce a warp stripe with a filling yarn crossing over a vacant space in the warp. It has been so very skillfully accomplished that the uninitiated would pronounce the stripe to be a straight warp thread. It can almost escape detection. In the same way a filling stripe can be produced by the warp yarn. Here is another very singular accomplishment which has been skillfully produced. A designer has recently produced two entirely different fabrics from the same yarns without altering the colors, the weave, the construction nor the pattern. The face produced on the fabric of one sample is that of a fine worsted goods, while the face of the second sample is that of a much coarser fabric and more like a homespun. Both of the sample pieces are made from the same yarns. How is it done

These are many other clever ways of producing novel effects by merely employing the natural state of things. What is meant by this statement is this: Suppose I hold a stick in my hand and tried to stand it up. To produce the falling of same it will be unnecessary to push it over or to attach something to it to make it fall, because it will fall the moment I let go of it owing to natural causes. It is much the same way with the art of designing. Some of the most novel and exquisite effects have been produced by simply letting some natural cause take its course. It was by this means that one of our largest and most successful mills was operated for one whole year on one novel line of goods. The craze for the production of this mill took like wild fire, and it was sold for over a year ahead. By the time that other mills had copied the work the craze disappeared. Hardly a yard of this material can now be purchased at any store. This fabric was produced by making as uneven yarns as possible. There was not an even stretch of yarn in the whole oufit. This yarn was the strangest maze of unevenness ever produced in any mill. It varied from the finest places to the ugliest looking coarse yarn spots which could be woven. There were no repeats! The machinery was merely rigged to produce uneven yarns and then nature was turned loose. There had never been anything like it produced before nor has there been any produced since. The goods produced from these yarns were plain woven. There is no telling what the possibilities would have been nor what they would be now, if these same yarns were reproduced and woven into fabrics with dobby and jacquared effects instead of plain weaves.

Here is another novel effect which can be produced by mesh or sparsely woven spots in squares, ovals, cords, or stripes and fanciful figures, over very bright plain woven parts of under cloth. This will be a double cloth, the plain of fancy figures loosely woven being sewed between the figures to the under or back plain fabric. And endless variety of such work may be produced by the visionary designer.

Tight and loose warp ends cut a great deal of figuring with the designers' problems. Special loom motions of various kinds can be skillfully brought into play, such as expansion reeds, and variable distance rising harnesses. That is, having the harnesses so operated that they will be raised higher at one time than at another, etc This will cause tight and loose effects in the warp.

To produce a two-color tone effect with yarns of the same number and of the same color is another interesting stunt. This can be done by weaving one fabric closely woven and another loosely woven. The two fabrics will be of two different tones though they are made of the same colored yarns.

Right and left-hand twisted yarns together with soft and hard twisted yarns intermingled in various combinations will serve to produce many curious novelties. Intermixture of stocks, fibres, coarse and fine yarns, combed and corded yarns, plain and fancy yarns, etc., all add ranke to the textile designer's problems. Core yarns are also used to produce raised effects. There are two ways of doing this. One is to

(Continued on next Page

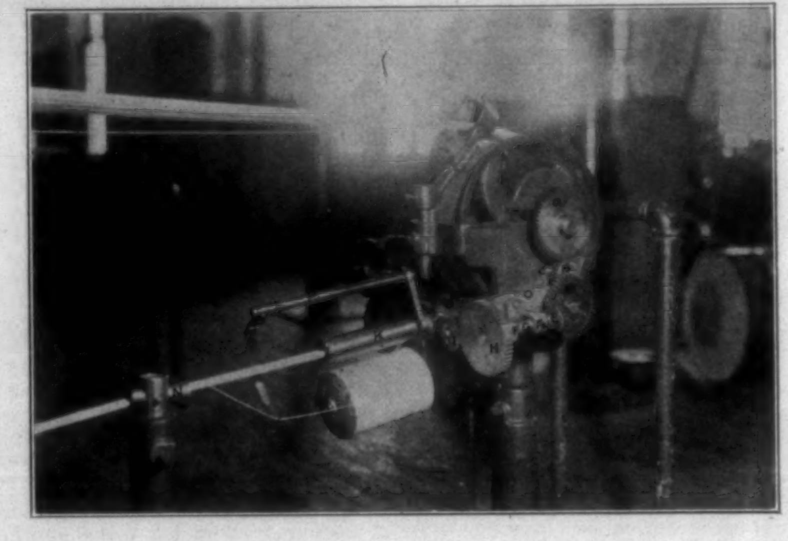
Warp Wrapping Machine

E. W. Edwards, superintendent of the Hamilton-Carhartt Mills, Rock Hill, S. C., has invented and patented a warp wrapping machine designed to facilitate the handling of warps.

Mr. Edwards describes his machine as follows:

The object of this warp wrapping machine is to improve the handling of warps chains from warpers to beaming room, to reduce the cost of handling them and at the same time to improve the running of the work in the dyehouse, beaming room, slashing and weaving rooms.

Anyone connected with long chain beaming work knows the many difficulties incident with handling this kind of work. Some of them are tangles on the boiling out or dye vats, uneven colors and the breaking of the chain, where the chain is not wrapped.



By the use of this wrapping machine these troubles are eliminated. The thread is wrapped around the chain at the warpers and there is no chance for the chain to tangle while going through the dye vats.

Seven of these machines have been in use at the Hamilton-Carhartt Mills No. 1, Rock Hill, S. C., and the cost in the dyehouse work has been reduced 10 per cent. The cost of beaming has been reduced 25 per cent and the running of the warps in the weave room has been improved 50 per cent.

This machine is known as the E. W. Edwards wrapping machine and has been patented under date of August 9, 1924, and its operation is more fully described by reference to the following description to the accompany illustration:

Attached to the head of any ball warper, A is a 45-tooth driving gear that meshes into gear B, 36-tooth intermediate gear that meshes into gear C, 14-tooth pinion driving D, a 43-tooth bevel gear that meshes into E, a 22-tooth bevel gear.

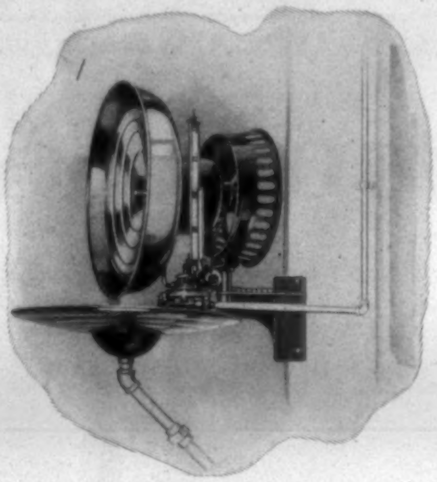
E is fastened onto shaft G and revolves in bearing F. On the other end of shaft G is gear H, 54-tooth driving gear that meshes into gear I, 22-tooth intermediate that meshes into gear J, 24-tooth. Gear J is fastened onto tube L that the warp chain passes through. Sleeve K revolves around the tube, carrying with it rack M, and P. P. is the tube spindle and holds the thread that the chain of warp is wrapped with. O is the main frame of the machine and is attached to balling head by bolts, cc. N is warp guide and holds all the ends in place as the thread or band is being wound around the chain Q is the thread guide and is attached to M.

The Textile Designer's Problems

(Continued from Preceding Page)

fill the yarns spun or twisted with a cheaper material for the center of the yarn than the outside or fact of the yarn. Another method is to pad the corded effects with waste yarns to make the cord effects look fat with the more expensive yarns seen on the face. This is not done to deceive the buyers. It is merely an honest stock in trade method to produce expensive cloth at a popular selling price. There is no use of putting expensive silks, mercerized cotton, combed Egyptian yarns, etc., in concealed places where they do not show and are not subject to wear. In fact, the goods made with the more expensive yarns thrown upon the face of the goods, and having plain cheaper materials for padding and cording are stronger and have better wearing qualities.

Many more stunts belong to the progressive designer who cares to study the problems which are peculiarly his to solve or to create. The designer of the future must of necessity be a man of problem studies. He must not only know his trade skillfully, but he must think rapidly, execute quickly, and keep into closest touch with the latest ideas of styles, salesmen, buyers and retail movements. He must be a man of the moment and be prepared to work in straight line movements even if his patterns take zigzag course. He is often called upon as it were to fill round holes with square pegs.



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Faults in Cotton-Piece Dyeing

WHILE the piece dyer's remark is in the main true that the majority of the faults attributed to him are in the piece before he gets it, there are many ways of turning out bad or indifferent work which have nothing to do with bad cloth or the obtuseness of the foreman bleached. Leaving on one side, therefore, stains, flecks, uneven penetration and the like, which do not as a rule originate in the dyehouse, we may consider a few of the minor causes of faulty dyeing and what they lead to.

The question of rope marking—not infrequently confused with bad singeing, especially on the plate—is really a fault which should be classified among those for which the dyer is not responsible. It is generally admitted that the washing machine, and not the boiling in the kier, originates these marks. They may also be caused by bad mangling, but that is easily prevented. The remedy lies in eliminating the weight of the top bowl in the croft washer; but since this is highly inconvenient, to say nothing of the bad washing which it entails (for it is usually the heaviest goods which show the worst rope marks), the system of slack washing, if necessary merely over a wince machine, should be adopted wherever practicable. Once goods are rope marked, however, nothing will save them but stripping and putting to a light shade. To attempt to cover them by dyeing darker is usually a sheer waste of time. Most direct colors can either be cleared completely or cut down to a yellow to yellowish brown, which serves excellently as a basis for an ecru or beige shade. Unless the marks are very bad they can sometimes be covered by a basic dye on tannin mordant, but the tannin should then be applied through the medium of a slop-padding machine. Where a whole batch of goods is known to be faulty some dyers rely on wood colors to give them the best results.

The question of jiggers is one which does not receive its due amount of attention. Admitting that a modern and up-to-date machine may cost anything from £150 upwards, and that to equip a dyehouse afresh is rather an expensive business, it is nevertheless surprising that the machine on which the actual dyeing is done is often allowed to be the cause of bad work. Dirty old wooden rollers, full of cracks, requiring violent chemicking every time the jigger changes from a dark to a light shade, bad driving, and gearing which ought to have been scrapped years ago—they can be seen today in many a shop which, surprisingly enough, turns out excellent work. True, they function, but at a cost which, though trifling, mounts up in the course of a year. An odd two yards stained at the end of a batch or, alternatively, an endcloth much longer than is really necessary; a cracked selvedge every now and again at that annoying place, three to four yards from the end of the piece; time lost changing from shade to shade, and so on. Trifling, no doubt, but all, or most of it, preventable at no great cost.

The judicious selection of color is in part done for the dyer by the excellent literature which exists on the subject in the dyemaker's handbooks. None the less, the choice of dyestuff is too often allowed to become merely a habit of using what the other fellow is using or what the dyemaker says the other fellow is using. There is in general far too little enterprise shown in trying out new or different colors for the eradication of recurring faults, principally, of course, because most dyestuffs behave exactly according to plan and give no trouble. One instance will serve to illustrate the point. A certain dyer was regularly troubled by reddish ends to every batch of ecru that he dyed. Every time a batch got to the making-up room two or three yards had to be cut off the two end pieces. This went on for months until an investigation of the dyestuff against a standard sample (the one at the works either did not exist or had got lost) showed that the mixture was now based on a different mother color. It is very general practice to use habitually a prepared mixture as a foundation for a shade. Although it may have been prepared from dyestuffs which the manufacturer knows dye well together, a dyer should make his own mixtures to suit his own circumstances. It is not easy, and to find good mixtures takes time, but surely it is worth while.

For some reason or other a man accustomed to do his work on the jigger fights shy of the slop-padding mangle as an aid to production. In many dyehouses they do not even exist, and even in print works, where such things normally abound, there is usually to be found a disinclination on the part of the dyer to use them. Admittedly the two serious drawbacks to dyeing in the padder are, first, that it is only suitable for light shades, and second, that for short running it is more expensive than the jigger. But even in times like these, where large numbers of pieces per shade do not occur every day, there are often cases where the padder can be used to advantage. At 50 lumps per shade an efficient machine can turn out 200 lbs. per day with ease and, given practice, of an absolute evenness of shade not often to be found in jig-dyed work. Everything necessarily depends upon correct replenishment of exhausted color, but the factor once found for any given dyestuff is a constant for almost every kind of cloth. It may be argued that a man working a pair of jiggers will make light of 50 pieces per day, and that since a padding machine requires three men to run it (it only requires two if mechanical guiders are used) the saving is not much. Nevertheless, for shades within its power the padder turns out better work, and this is especially true with cloths which, owing to peculiarity of weave or to tightly-spun yarn, are difficult to penetrate. And that

(Continued on Page 34)

Yarn Speculators Methods of Operation

A yarn merchant of many years' experience in the sale of cotton yarns and with intimate knowledge of the methods of the yarn speculators has written the description given below.

It should be remembered that this is the statement of a man actually engaged in the cotton yarn business and is not the theory of a yarn mill manager or an editor.

His statement is as follows:

1st. When yarns are cheap and mills are operating on a curtailed basis speculative houses lay out their schedule of operations for the first signs of inquiries. They usually wire their Southern representative or wire the mills direct and make them offers one to two cents per pound below the market at the time. Some of the largest operators buy as much as 5,000,000 pounds which often results in little if any profit to the spinning mills. It is a common occurrence to lay out a plan of campaign to buy up a large part of the deliveries of staple numbers over a period of three or four months. They have been known to pay a difference of as much as four cents per pound the same day in order to take the mill's product out of the market. A buying movement of this kind usually puts the market up and when the buyer is assured of good profits, not including his commission, he begins to sell out his holdings. This means the consumer pays a higher price for his yarn and the spinning mill runs for weeks sometimes at a loss.

2nd. Again, when the market has reached a point that would indicate a decline in price, it is their policy to ascertain the exact delivery that the various mills can make. For example: Should the time of the year be April and there is a likelihood of a decline with the majority of the mills open for business June, July and August, the speculator will not hesitate to cut the market price on the yarn one to five cents a pound and sell some time millions of pounds short for future deliveries and hold orders until prices are sufficiently below their selling price to show a profit. This is another instance of the mills having their prospective profit squeezed out by the action of the speculator.

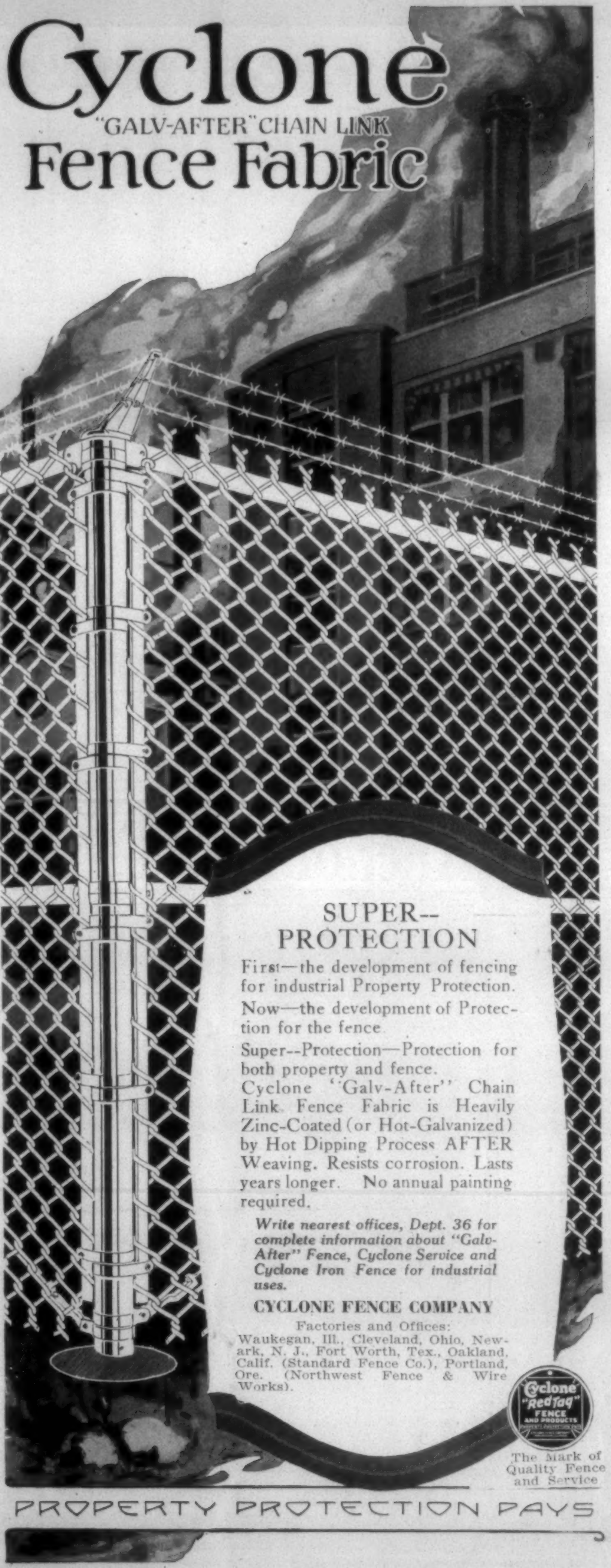
3rd. At other times when the market is fairly stable for any length of time and the speculator has an offer for example of 48 cents on 20-2, and the lowest quotation he can get from a number of mills is 50 cents, he will in all probability take the order at 48 cents and offer it to each mill separately until he finds one that will take it. If he cannot cover at the sale price, he relies on his 5 per cent to protect him from any actual loss. Of course, speculators sustain heavy losses on account of bad judgment, but they figure if they are right two out of three times, they are warranted in taking the risk.

4th. The 5 per cent commission to the speculators is simply an extra profit as they depend largely on their speculations for their real gains. It can readily be seen that the mill is placed at a disadvantage under most conditions as far as the speculator is concerned.

5th. If the Southern mills would pick out some reliable selling organization in which they have confidence and eliminate the 5 per cent speculative sales, it would mean a tremendous saving to Southern mills and help stabilize one of the most erratic markets of a stable commodity.

Small Dividends by English Mills.

Ninety-one companies engaged solely in the spinning of cotton yarn having a total paid up ordinary share capital of just under eleven million pounds sterling, and owning over eight milion spindles, provide figures which are probably typical of the position in Lancashire districts spinning American cotton. According to Frederick W. Tattersall's Cotton Trade Review no dividend whatever was possible for sixty-five of these companies: three firms made a distribution of 2½ per cent per annum, four of 5 per cent, one of 7½ per cent, 15 of 10 per cent, one of 12 per cent, one of 14 per cent. and one of twenty per cent, a total distribution of 85,994. Mr. Tattersall also compiles an index from the returns of the more fortunate Lancashire Textile Mills, and the finishing companies, twelve firms being included. Taking the par value of the shares as 100 per cent, the average index amounted to 179 per cent on January 4, 1924. Week by week variations appear in this index but on June 6th, it has risen three points to 182 per cent and on July 111 it stood at 184 per cent. Three of the companies included in this analysis are open to the severe competition of the market, whereas the other nine occupy a favored position and are usually called in Lancashire "the finishing monopolies" with the exception of two fine spinning combinations and two very powerful thread companies. During the six months under review, the shares of the three ordinary companies first referred to lost value, where as the remaining nine with two exceptions continued to improve the status of their values. The gulf between the standing of the finishing, etc., companies and the ordinary spinning mills of the Oldham district thus continues to widen. Nothing but an abundant supply of cheap cotton will remedy this situation, —such is the unanimous opinion of the Lancashire cotton people.—(Acting Commercial Attache Hugh D. Butler, London, July 29.)



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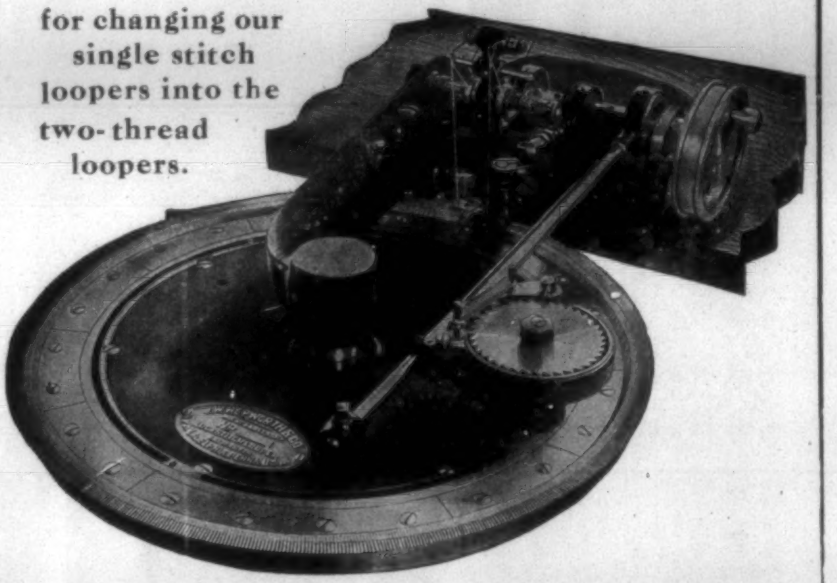

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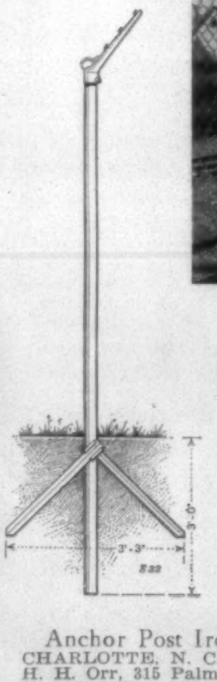

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Knit Goods

Pressing and Calendering Knitted Fabrics

THE object of pressing and calendering knitted fabrics and garments is to straighten and level the form and surface, secondly to give the texture a fimer condition and thirdly to impart a gloss or lustre to the finished goods The various finishing processes through which the goods have passed since entering the finishing department have put them in a more or less limpy shape according to the character of the raw material of which they are composed, their general structure and the nature of the treatment which they have received. No effort was made to avoid creasing the texture in the preliminary processes. The creases must be removed and at the same time the elasticity of the stitches in the fabric and the characteristic finish of knitted goods must be maintained and if possible improved upon. Usually the application of heat, pressure and moisture against the surfaces of the fabric or garment will accomplish the desired end. These conditions can be brought about with a common hand iron for heat is derived from the heated iron, pressure from the weight of the iron and the force applied by the person and the gloss from the friction produced when the smooth bottom of the iron is glided over the surface of the goods. But the hand iron cannot be worked over much ground in a given time and is not practical for use in a mill for that reason. Besides, the heavier plates and rollers of the modern presses produce far better results than is possible for even an experienced person to accomplish with a flat iron.

Many knitted fabrics and garments are not pressed at all, in the sense of flattening the texture, for it is desirable that the surface fibers present a raised appearance. The goods are dampened and drawn on to the common wooden forms shaped to the required dimensions and placed between the beds of a press provided with steam heating connections. Although defined as a steam press, practically no actual pressure is exerted on the goods, but the moist heat tends to raise the surface fibers and at the same time set the goods to the shape of the forms. Some mills press their hosierry and underrwear by placing them on wooden forms between felt-covered plates and subjecting them to the action of live steam. Knitted fabric is pressed both by the steam-heated bed system and the continuous process. Heat, moisture and pressure combined will consolidated textures intended for the lustre class. The heat and the moisture tend to produce slight swelling in the goods, which is limited by the degree of pressure put on, provided that the goods are of the class in which pressure is employed. Consequently the fiber will be somewhat embedded and present a surface on which a lustre can be developed as well as firmness of the goods without materially altering the characteristic pliability of the loops.

Goods Distirted by Careless Drawing on the Forms.

One has only to observe the manner in which some of the operatives draw the goods on the wooden forms to discover why some hosiery, underwear and outer garments are mis-shapen when finished. One girl who was drawing hosiery on wooden form for the press stretched each stocking lengthwise unnecessarily. Indeed, the entire lot of stockings was mis-shapen as a result. In another case an increase in width was given a lot of underwear by the attendant pulling them over the form in such way that the goods were stretched across and did not go back on the forms.

Again, some knitted goods are mis-shapen due to the warped condition of the boards. Or the wood may be splintered at the edges and cause fraying in the texture. The object of pressing knitted fabrics or garments is primarily to impart shape to the goods and at the same time give them the proper finish. Although termed pressing, which would mean a flattening and solidifying of the goods, pressing is really a secondary point to be obtained. The shape and a permanent lustre, combined with softness and elasticity, are the important points. The pressing may be more or less fugitive in character and still result in marketable goods. But it is important that the following features obtain in the goods when finished: a full, soft feel; a compact and flexible texture; a fibrous face; a permanent brightness instead of a temporary glaze; increased resisting power in the loops but not to the extent of depriving them of their elasticity; a smooth, even surface and a good form.

Calendering Knitted Fabrics.

While the above processes of pressing knitted fabrics is applicable to cotton, woolen, cashmere, and most other goods, calendering is used mostly on cotton or mixed fabrics. A number of different kinds of calendering machines are in service, one of which operates sets of gas-heated rollers between which the fabric for treatment is passed. Other calendering machines are fitted with a system of steam-heated rollers between which the fabric is passed on traveling aprons. The actual process of calendering is equivalent to ironing. Some calenders are provided with a double cylinder engine for driving purposes which permits the speed to be varied according to the nature of the

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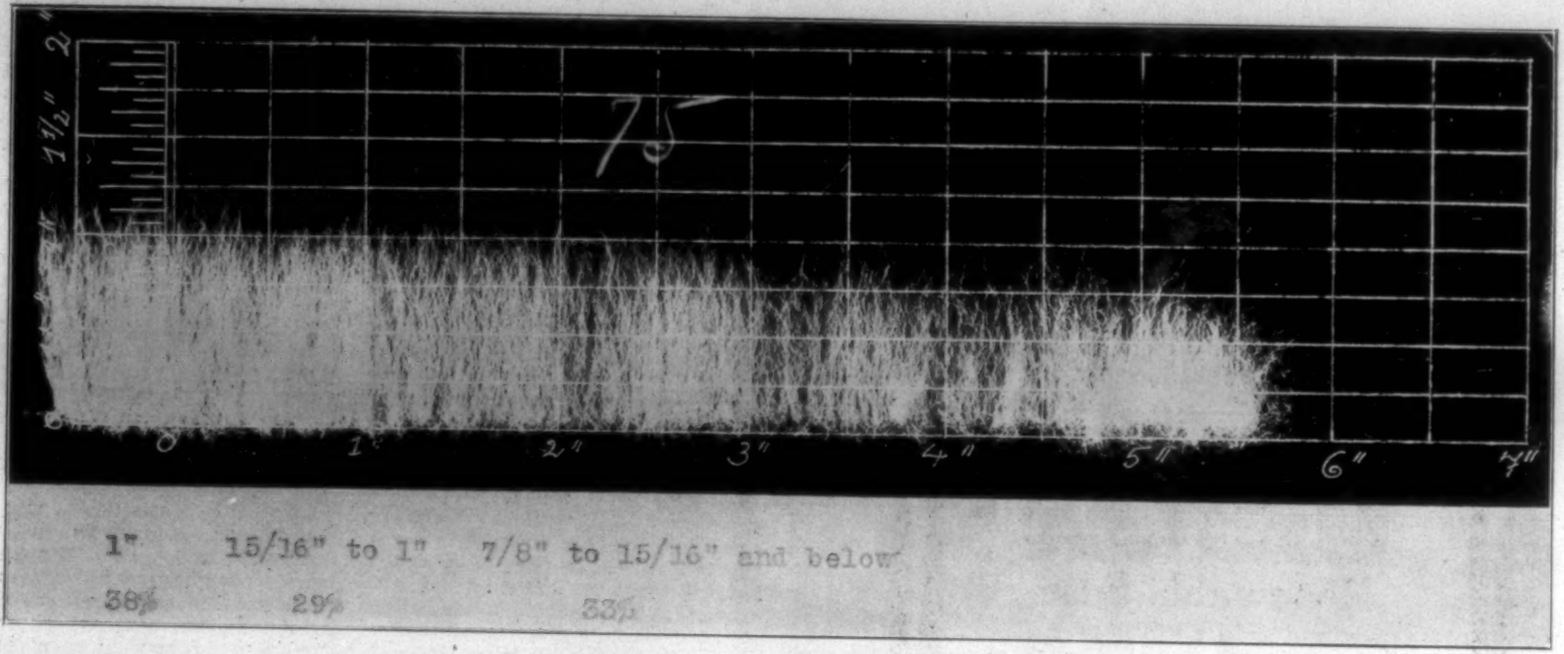
Determining the Length of Cotton Fibres



1"	15/16" to 1"	7/8" to 15/16" and below
38%	29%	33%

Photographic Record of Cotton Fibre Lengths

Mills buying cotton usually determine the length of staple by pulling the staple until only the longest fibres are left and yet there may be only a small portion of the longer fibres.

While recently at the Shawmut Mills, Shawmut Ala., the Superintendent Oliver G. Murphy showed us , the system they used in determining the of each lenth of fibre.

When a shipment of cotton is received a record is made of the shipper and the section from which the cotton comes and a definite number of samples are pulled.

Instead of judging the cotton by the length of the longest fibres, they place the amount of fibres of each length on a glass plate and a photograph is taken and filed.

If certain cottons have a larger per cent of long fibres than others they will make less waste and are of more spinning value.

The system being used by Oliver Murphy is well the study of those who wish to buy cotton for spinning value instead of by the usual "eye-shut" method.

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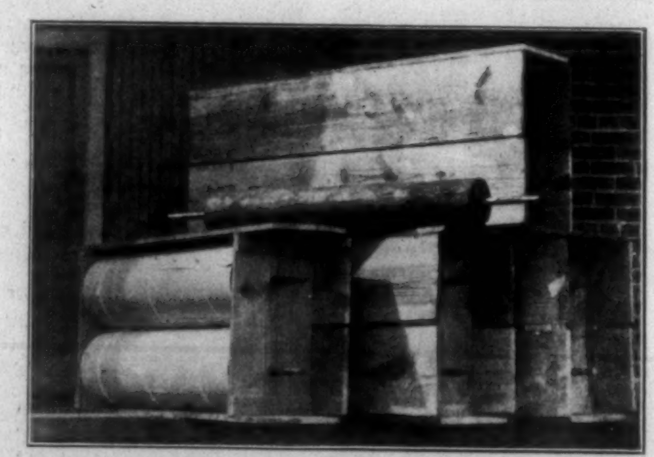

THE CLUMSY SHIPMENT
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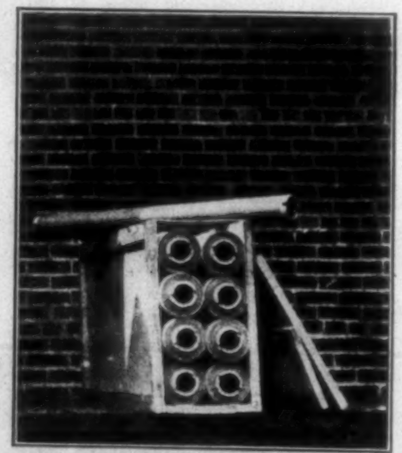

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Chicago New York

Sixth Southern Textile Exposition

PLANS for the Sixth Annual Southern Textile Exposition, to be held in Textile Hall, Greenville, S. C., October 20 to 25, are practically completed and with 75 per cent more space sold than ever before, President W. G. Sirrine is looking forward to a record-breaking attendance of exhibitors and textile men of the country.

A two-story annex, with almost as much available floor space as the commodious Textile Hall itself, has been completed and all space in both buildings has been sold. Exhibits of heavy machinery and other mill equipment are arriving every day and are being installed. Work of decorating the hall and annex for the exposition has been started and the official decorator reports that the color scheme used will be novel and effective.

Almost 200 producers of textile goods and equipment are listed as exhibitors for this show and even at this late date others are filing applications for space, Mr. Sirrine announces. Arrangements have been made to handle the crowds more easily this year and an entire floor will be turned over to the Southern Textile Association. This association, working under the local branch, the Greenville Textile Club, will maintain headquarters for visitors and materially assist in the smooth functioning of the exposition.

Bulletins have been sent out by the Textile Hall Association to all exhibitors requesting that all preliminaries be attended to at once in the matter of making reservations, having booths decorated and lettering furnished for display cards. Exhibits will be stored free of charge until the exposition opens. On account of the uncertain railroad situation, exhibitors are requested to ship these exhibits as soon as possible.

Arrangements have been made with Greenville furniture and equipment houses for the rental of furniture, rugs, desks, etc., at prices ranging from 20 to 25 per cent of the cost of these articles.

Following the precedent of several years exhibitors may obtain tickets from the Textile Hall Corporation for distribution to their customers. Only those signed and taken up at the door will be invoiced to the exhibitor at 25 cents each. If it is desired to have tickets printed with the name of the exhibitor, proof must first be submitted to the corporation. Tickets of this sort may be distributed in large numbers and only those taken up at the door will be charged for, in this way permitting a greater advertising possibility to the exhibitor. The following basis for charging tickets to the exhibitors will be used; up to 100 tickets, 25 cents; excess over 100, 20 cents; excess over 300, 17½ cents; excess over 500, 15 cents each.

The new Hotel Poinsett will not be open in time for the exposition, but the citizens of Greenville have generously come to the aid of the corporation and have turned over their guest rooms to the housing committee for the purpose of taking care of the enormous overflow. Practically every room in the local hotels has been reserved for the period of the exposition, but the committee announces that reservations for rooms in private homes are now coming in as fast as desired.

All of the rooms listed with the corporation are reported to be highly desirable. Those using them will have separate keys and be entirely independent of the household. A fair schedule of prices has been established by the corporation and those who plan attending the show are urged to make application at once for these rooms.

"The Textile Exposition has become a Southern institution," said President Sirrine. "It has come to mean a friendly conclave of producer and consumer where improvements and developments are displayed and plans for mutual benefit are discussed. Always featured by the co-operation of the exhibitors, this current show will surpass all others in point of size and enthusiasm."

The Twentieth Amendment —Labor of Minors

(The Presbyterian, Philadelphia, Pa.)

The proposed amendment to the Constitution of the United States, giving Congress power to limit, regulate and prohibit the labor of persons under eighteen years of age, has finally passed both Houses of Congress. It now goes to the States for ratification.

There is some danger in this proposed amendment. The rearing and care of children is not committed to the State, but to the parents, by the law of God. This work is of too delicate a nature to be committed to the State and submitted to the defilement of politics. It looks strongly toward socialism. No provision was made for it in the Constitution, and to introduce it now, when socialism is pressing to the front by every means and on every opportunity, is a very serious matter.

Moreover, the question of training a child to work is too intricate a matter to be regulated by the State. If cruelty or injustice is in any way perpetrated on a child or minor, there is and should be a way for his civil defense. But to attempt to make a civil provision for interfering with parents in the use and training of their children is a return to barbarism.

In the case of a mother who is left a widow in need, and having several hardy boys, say from ten to eighteen years old, would it be right, just or wise to deprive her of the aid of these boys in earning their own living or to meddle with her in the management of her affairs? Any tendency of this kind would be tyranny. Where would Congress get the wisdom to interfere with such details? With Congress as it is now, there can be but little wisdom in interfering with family management.

Moreover, the training of children to industry from their earliest years, without oppression, is of the first importance to the nation, the family, and the individual. Nothing could be more perilous to the rising generation than for them to feel that the State protected them from work and that idleness was their right. One of the greatest blessings of this nation, and one of the sources of its greatest power, has been the necessity of its youth learning to work at an early period in life. It was necessity which developed invention, achievement and sympathetic fellowship. Our best men have been the sons of toil, and the necessity for toil. When the whole matter of training youth in labor is put into the coarse hands of Congress, the result can only be evil.

Mills Oppose Higher Power Rates.

Atlanta, Ga.—Following a hearing before the State Public Service Commission of a petition by the Georgia Railway & Power Co. for a revision of wholesale industrial power rates, the commission decided to allow the petitioner and Aragon Mils, of Polk county, opposing the petition, until September 16 to file briefs.

The railway and power company was represented by its president, Preston Arkwright, who told the commission that the cost of producing power is 1.4 cents per kilowatt per hour, and that every customer ought to pay at least that cost and a fair return on the property devoted to this service.

The Aragon Mills were represented by Attorneys Edgar Watkins, of Atlanta, and W. W. Mundy, of Cedartown. The opposition told the commission that the proposed increase of the railway company would cost the Aragon Mills $10,000 per year, suggesting that it was unfair to increase rates within six months after the mills had been induced to dismantle their steam plant and install power equipment at a cost of $50,000. It would cost the Aragon mills $100,000 to go back to power now, Mrr. Watkins declared.

Humidity of Atmosphere in Regard to Textiles

SUBSTANCES when exposed for some time to a moist atmosphere take up water, either (1) by chemical combination with the substance, the water being in some cases held in a loose state of combination, or (2) the substance may appear to be dry to the touch while retaining water in a mechanical manner without chemical combination taking place. In this latter case the water is termed hygroscopic moisture.

Many substances which contain water in a loose or feeble state of chemical combination, and all substances which contain hygroscopic moisture, will readily part with the water as vapor when the bodies are placed in a dry atmosphere. This process of evaporation will continue until the water vapor exerts its maximum vapor pressure in the atmosphere. A balance is then obtained, water vapor passing into the atmosphere at the same rate at which the vapor is being returned to the hygroscopic body, so that the drying ceases. If, on the other hand, the atmosphere is maintained by means of a powerful drying or desiccating agent, the body will continue to part with its hygroscopic moisture until it is dried perfectly.

Cotton, or other textile materials, dried in this way in a vessel containing a drying agent, ultimately becomes bone dry, and if again exposed to moist air takes up moisture until a balance is obtained between the water vapor in the air and the amount of water in the cotton, the point of balance being dependent upon (1) the kind of material, (2) the temperature of the air, (3) the relative humidity of the air. When this balance is obtained, the percentage of moisture in the material remains constant as long as the atmospheric conditions of temperature are maintained constant.

It is of interest to note that a two gram sample (approximately 1-5 oz..) of cotton will reabsorb as much moisture in converting it from the bone-dry condition to the official standard of regain, as is contained in one cubic foot of air saturated with water vapor at 60 degrees F.

In experiments made by Hartshorne, it has been shown that there is a lagging effect in bringing material to the condition where a balance is maintained between the moisture in the material and the moisture in the atmosphere at the time. Thus starting with two skeins of cotton, one of which has been exposed to a dry atmosphere and the other to a moist one, a very considerable time will be necessary to bring the two skeins to a balance and the same condition by exposure to an atmosphere containing an amount of moisture intermediate in quantity between the amounts present in the dry and moist atmospheres to which the skeins were first exposed. He has, however, also shown that this lagging effect may be made use of to give the true regain relationship for the particular atmospheric conditions, as after about 15 to 20 minutes the mean results of the two conditions of the two skeins will be continually the same as the final results attained by the exposure for a very considerable time to similar conditions of temperatures and humidity.

Paraguay Imports All Textiles

Although Paraguay is a cotton country there are no textile mills in the district and all such goods must be imported. In 1923 Paraguay imported textiles in an amount of $3,602, 693 Argentine gold as compared with $2,476,814 in 1922. These figures compare with an import of $1,450,63 during the first five months of 1924. During the past year Brazil increased her exports to this country, but there has been a noticeable falling off in sales in consequence of the advance in the rate of the Brailian currency.

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Estimated Cotton Yield of 11,950,725

St. Matthews, S. C.—The August condition report of the American Cotton Association shows the indicated yield based on the association's estimated acreage, **38,489,000,** to be 11,950,725 bales of 500 pounds gross weight. The Government par yields as of August 16 have been employed in arriving at the indicated yield, the report states. The association's condition report on the growing crop is on returns as of Aug. 23.

Based upon the Government acreage figures of 40,403,000 and using the association's condition figures, the forecast of production would be 12,592,901 bales, the report states.

The Report.

The association's report in full is as follows:

"The American Cotton Association herewith presents in detail its August report of the growing crop from returns as of August 23. The report summarizes important features such as boll weevil infestation, effect of weather conditions upon crop, fruiting outturn of lint and forecast of probable production. The condition of the cotton crop on Aug. 23 was 62.9 per cent normal, as compared with 67.2 per cent on July 23, a deterioration of 4.3 per cent for the month.

"The report shows the idicated yield based on the association's estimated acreage, 38,489,000, to be 11,950,725 bales of 500 pounds gross weight, the Government par yields as of Aug. 16 have been employed in arriving at the indicated yield. Based upon the Government acreage figures, the forecast of production would be 12,592,901 bales of 500 pounds gross weight, The Government bureau report issued Aug 23 as of Aug. 15 placed the condition figure at 64.9 per cent of a normal with an indicated yield of 12,956,000 bales of 500 pounds gross weight. The 10-year average condition for August is 62.1 per cent.

Condition Aug. 23, 1924.

Associations condition Aug. 23, 1924:

Virginia	58
North Carolina	59
South Carolina	56
Georgia	62
Florida	68
Alabama	66
Mississippi	66
Louisiana	54
Texas	54
Arkansas	65
Tennessee	73
Missouri	71
Oklahoma	78
California	88
Arizona and all others	85

U. S. average 62.9

Association indicated yield in bales of 500 pounds gross, 11,950,725.

Indicated yield in bales of 500 pounds, using association Aug. 23 condition figures based on Government acreage, 12,592,901.

Weevil Infestation.

"Due to the drought and extreme heat, which have prevailed practically throughout the entire Cotton Belt, the damage of the weevil to the blooms was extremely small. However, under the protection of the foliage around the boll, he has largely confined his activities and done serious damage to the bolls, which, under normal conditions, he would have only attacked after destroying the blooms, the damage being hard to detect on account of the dry weather. This damage will play a material part in the final yield.

Weather Conditions.

Continuous drought with extreme heat is reported practically through out the entire Belt, with the exception of local rains. This weather has resulted in undersized bolls, abnormal development of the fruitage and premature opening. It is now too late to remedy these conditions, and it points to the certainty of the premature opening of a large porportion of the crop.

Crop Two Weeks Late.

"The crop is reported generally two weeks late, and this condition would mean an increased boll weevil damage should rains occur.

'It is found that a large percentage of the locks of cotton contains on an average of five to seven seed per lock, whereas under normal conditions there shoud be nine seed. This results in not only a shortage of outturn of seed cotton per boll, but a shortage in the outturn of lint from the seed cotton when ginned.'

"Outlook for crop plainly shows repetition of experience of last three years. We expect the Government report to show in excess of our indicated yield, and probably in excess of the indicated yield of the Government as of Aug. 16 on account of above condition and premature opening. Ginning in the early part of the season wil be extremely heavy and will seem to confirm the correctness of the larger crop.

Boll Weevil Damage.

"However, taking into consideration the damage already done by the weevil and the additional damage which will be done even with normal weather, the certainty of an increase of wet weather, the lateness of the crop and the shortage of the staple caused by premature opening of the boll, the prospect at this time point plainly to a repetition of the condition of the last three years, the final outturn of the crop showing a drastic reduction as compared with the August report, as follows:

"Last year the Government Aug. estimate was 11,516,000 bales while the final figures were 10,128,000 bales, or a reduction of 1,388,000 bales.

"In 1922, the Government Aug. estimate was 11,449,000 bales, while the final yield was 9,761,000 bales, or a reduction of 1,688,000 bales.

"In 1922, the Governemnt Aug. estimate was 8,203,000 bales, while the final yield was 7,953,000 bales, or a reduction of 250,000 bales."

Sample of Goods Wanted in Egypt.

Trade Commissioner May, Alexandria, has submitted a sample head-end of British bleached cotton goods which shows the marking as employed by British shippers. The sample will be made available to any interested firms upon request to the Textile Division.

Cost Figures of Southern Dry Goods Wholesalers

Cambridge, Mass., Aug. 28.—The Graduate School of Business Administration, Bureau of Business Research, Harvard University, has just issued what they call their Bulletin No. 45, entitled "Operating Expenses in the Wholesale Dry Goods Business in the South in 1923."

It is explained that this pamphlet is the result of agreements entered into with the Southern Wholesale Dry Goods Association. The figures presented in this bulletin are considered by the bureau as representative of conditions generally in the wholesale dry goods trade in the South in 1923.

Among the 71 firms reporting, the lowest sales volume reported for 1923 was approximately $100,000, and the highest was over $7,000,000. The typical or representative net sales figure was $900,000. This figure is arrived at by deducting from gross sales the value of merchandise returned by customers and the allowances made to customers on merchandise not returned, the amount collected from customers for prepaid transportation charges, and also the cash discounts taken by customers, whenever any of these amounts have been included in the gross sales figure. Net sales thus represent the real volume of business handled and, therefore, is taken as 100 per cent in computing percentages of expense and profit for comparative purposes.

Returns and allowances were found to amount to 3.1 per cent of the gross sales of the 60 firms that reported this item. Five firms reported a figure of less than 1 per cent of gross sales, and six firms had a figure of over 5 per cent. Returned merchandise, of course, incurs double handling and selling expense, and in addition constitutes a frequent cause of disagreements with customers.

In the following table are grouped the firms reporting, according to their volume of net sales for 1923. It is evident that there was no distinct concentration in any single group.

Net Sales.

	All firms Reporting
Less than $500,000	18
$500,000 to $990,000	22
$1,000,000 to $1,999,000	18
$2,000,000 and over	13
	—
Total number of firms	71

In the following table is given the common figure in percentage of net sales for each item of expense and profit, and the common figure for the rate of stock-turn for the 71 wholesale dry goods firms in the South reporting to the bureau for 1923. In this group were included firms with sales volume ranging from slightly over $100,000 to over $7,000,000, situated in 13 Southern States. This table, therefore, gives a representative summary of the cost of doing business among dry goods wholesalers in the South in 1923. These common figures were not worked out on the basis of arithmetic averages, but in each case represent tabulations of percentages arranged in such a way as to permit the determination of truly typical figures without giving undue weight to extremely high or low figures or to figures from firms with exceptionally large sales volume. It is to be borne in mind that the total expense figure shown in this table includes a charge for interest on owned capital invested in the business, and that, therefore, the net progt figure does not include the element of return on capital. This is in accordance with the principal that interest on capital is a real cost that must be taken into account irrespective of whether the capital used in the business belongs to the firm or is borrowed from banks or manufacturers. A corollary to this principle is that a business venture should return to its owners something over and above the interest on the capital they have invested; such an additional return constitutes the real net profit of the business.

Operating Expenses, Gross Margin, Net Progt, and Stock-Turn for All Southern Wholesale Dry Goods Firms Reporting for 1923 (71 Firms). Net Sales 100%.

	Common Figures %
Total salesforce expense	5.7
Advertising	0.13
Other selling	0.15
Wages of receiving and shipping force	0.8
Packing cases and wrappings	0.13
Outward freight, express and truckage	0.16
Executive salaries	1.8
Office, salaries, wages and bonuses	1.0
Office supplies, postage and stationery	0.26
Telephone and telegraph	0.05
Other buying, management, and office	0.45
Rent	0.7
Heat, light and power	0.1
Taxes	0.5
Insurance	0.23
Repairs of equipment	0.04
Depreciation of equipment	0.1
Total interest	2.8
Miscellaneous expense	0.5
Losses from bad debts	1.0
Total expense	16.6
Gross margin	17.6
Net profit	1.0
Stock-turn (times a year)	3.4

The largest single item of expense of wholesale dry goods firms in the Sout hreporting to the Bureau for 1923 was that of total sales force. The common figure was 5.7 per cent of net sales; thus, a typical firm with sales of $900,000 had total sales force expense in 1923 amounting to $51,300. For 11 firms, this expense amounted to more than seven per cent of net sales. On the other hand, there were 10 firms that

(Continued on Page 27)

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D. H. HILL, JR.	Associate Editor
JUNIUS M. SMITH	Business Manager

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Contemptible Market Reporting

THERE has been much complaint in recent years relative to the editorials written by the Philadelphia representative of the Daily News Record in his yarn market reports, but in his "editorial" of August 28th he exceeded all of his previous contemptible efforts to aid the yarn speculators.

It is well known fact that he frequents the offices of the leading yarn speculators and last week we published a statement by men in the yarn business relative to the present plight of the yarn speculators.

Imagine yourself trying to help "friend speculator" and going out of his office to write a yarn market report that would help him to buy yarns at lower prices.

Could you under such circumstances write a better "editorial than the following:

> PHILADELPHIA BUREAU
> DAILY NEWS RECORD
>
> Philadelphia, Aug. 28. — The market situation in carded yarns has become more or less mixed. The majority of the spinners appear to be making a stand for higher prices. Whether the somewhat striking uniformity in spinners' price ideas is the result of suggestion from certain quarters in and about Charlotte, N. C., remains to be seen. A change has come over some of the spinners since their association was reorganized last March. They now show signs of "thinking" as a trade organization, rather than as individual business men. This is producing some odd results, according to reports current here. It is unusual to find men in any line of business turning down orders at prices which show them a profit, yet some of the spinners are said to be doing this.
>
> For example, it is taken for granted by yarn sellers that a margin of, say, 20 cents a pound on 20s-2 Southern carded warps of ordinary grade, above the cost of the cotton, is sufficient to allow the spinner a reasonable profit. Business for late 1924 delivery offered spinners recently, however, has been waved aside, it is said, although it was offered at approximately the present price of December cotton, plus a margin of 20 cents. It is argued by some observers in this market that when spinners act this way, there is probaly something more behind it than mere whim — especially when indications of it appear day after day from this or that source.
>
> It is held by some that, under the circumstances, spinners whose machinery is standing idle or running part time, and has been for months, may turn out to have been badly advised if they lose this present opportunity to book at least a substantial part of their capacity over the late fall and early winter months. It is explained that, were all of them doing so, they might get away with it, although such an outcome might, conceivably, attract the attention of the Federal Trade Commission, should it develop that the spinners acted according to agreement in the matter of "pegging" prices. It appears to some, nevertheless, that in view of spinners' customary methods of doing business at this time of the year, it is nothing short of amazing that the asking prices of some of them should this year remain unchanged after cotton has dropped 500 points.
>
> The placing of orders in this market is reported to be less active today than during the first half of this week, but the volume of inquiry is again interesting. Some dealers say the knitters are showing the greatest interest, while other sellers are busier handling inquiries for the weaving trades. Opinions differ as to whether most of this inquiry is based on goods for orders already received, or is simply in expectation of such orders. The fact remains that the inquiry is broad and general and that it promises a very large movement of cotton yarns sooner or later.

There is the absolutely false statement that 20 cents margin means a reasonable margin of profit on 20-2 yarns. With 26-cent cotton and 46-cent yarn the manufacturing margin is 11.15. Allowing 7 cents for labor cost and 2 cents for power there is just 2.15 cents left to cover supplies and overhead and to provide a profit and no man of any intelligence would say that there was a profit.

Although 20-2 are being booked in large quantities at 46 cents, the representative of the Daily News Record, in order to help "friend speculator," quotes them at 43½ cents, and at that price the manufacturing margin is not enough to pay labor and power costs.

Read his reports more than once and you will realize that he one minute pleads with the spinners to let the speculators have yarns at lower prices and next minute threatens to report them to the Federal Trade Commission.

He is "amazed" that prices of yarns do not decline with a 500-point drop (a purely theoretical drop) in cotton but when cotton has advanced without any advance in yarn prices as has happened during the past twelve months he has expressed no amazement.

The Daily News Record is a big and a clean paper but their Philadelphia yarn "editorial" writer is a disgrace to decent journalism.

The truth is that yarns cannot be sold at a profit today but the market is fast changing to a seller's market.

If the spinners will uniformly advance their prices they can get what they ask and will soon be operating at a profit.

Stirred New Jersey

WHEN Mrs. F. E. Feickert, of Plainfield, N. J., a woman prominently identified with politics in New Jersey, made the statement that she was going to help prevent the employment of children of six and seven years of age in the cotton mills of South Carolina and Georgia, she did not anticipate our exposure of conditions in her own State as depicted by Miss Grace Abbott, Chief of the Children's Bureau of the Department of Labor.

We know that the reports of Miss Abbott are always unreliable, but in our letter to Mrs. Feickert we merely quoted extracts from her report.

Our letter was published in at least five New Jersey papers and the following paragraph was featured in the headlines:

> **"Mrs. Feickert is a valiant foe of the employment of children of six and seven years of age in the cotton mills of South Carolina and Georgia, a condition that does not exist. Miss Grace Abbott says that children of five years of age work in New Jersey truck farms and that 20 per cent of the workers are under 10 years and 76 per cent under 14. Will Mrs. Feickert dare attack child labor in her own back yard."**

We have not yet had time to get the editorial reaction of the New Jersey papers but the news stories carry the impression that they think Mrs. Feickert is in a bad hole.

Idle Spindles

THE following cotton spindles were entirely idle during July, 1924. The list does not include spindles on part time operation:

Alabama	178,000
Georgia	356,000
North Carolina	707,000
South Carolina	386,000
Connecticut	174,000
Maine	107,000
Massachusetts	4,410,000
New Hampshire	842,000
Rhode Island	1,172,000
Idle in South	1,824,000
Idle in New England	6,752,000
Idle in other States	501,000
Total idle during July	9,077,000

Why North Carolina Grows Great

PEOPLE wonder at the progress being made by North Carolina and yet there has just been an incident that shows the real cause of its greatness.

Governor Morrison, a Democrat, was advocating a bond issue of $8,500,000 with which to establish ports and ship lines and thereby secure a reduction in North Carolina freight rates.

In most States the opposition party would have seen a chance to make political capital and would have sought votes upon the plea that the Democrats were putting tax burdens upon the dear people.

Instead of those tactics George Butler, a prominent Republican and a brother of former United States Senator Marion Butler, went before the committee of the Legislature and urged the passage of the bill. George Butler and Arthur J. Draper accepted places upon the commission, while Senator Butler will campaign the State urging ratification of the Port Bill at the November election, and W. G. Brabham, State Republican Chairman, announces that his organization will seek to keep the Port Bill from being considered a partisan measure.

When in any State the leading politicians will for the good of the State waive the opportunity to make political capital from an issue of this kind, the progress of the people of that State must be recognized.

This is not published with any spirit of boastfulness but to show other States, in which politicians put party good above the welfare of the State, the price they are paying for too much politics and the real reason that North Carolina is making such great progress.

Personal News

John L. Robinson has resigned as superintendent of the Minneola Mills, Gibsonvile, N. C.

John T. Rountree has been promoted to superintendent of the Minneola Mills, Gibsonville, N. C.

Grover C. Childs has become night overseer of carding at the Pinkney Mills, Gastonia, N. C.

W. R. Stowe is now night overseer spinning at the Pinkney Mills, Gastonia, N. C.

J. J. Foster, president of the Elk Cotton Mills, Dalton, Ga., had the misfortune of having his handsome residence burned this week.

E. A. Smith, Jr., will be manager of the Carolina Glove Company, which takes over the Carolina Glove Mills, Newton, N. C.

A. R. Eller has resigned his position with the China Grove Cotton Mills, China Grove, N. C., to become night superintendent of the Klumac Cotton Mills, Salisbury, N. C.

Yates Laney has resigned his position in the office of the Groves Mills, Gastonia, N. C., to enter Furman University at Greenville.

W. F. Conley, overseer weaving at the Knoxville Cotton Mills, Knoxville, Tenn., was killed recently in an automobile accident.

O. D. Grimes, agent and superintendent of the Athens (Ga.) Manufacturing Company, was a Charlotte visitor this week while on his way to New York.

Robert E. McDonald, agent for the Lowe Manufacturing Company, Huntsville, Ala., paid us a visit this week while visiting relatives in Charlotte.

A. W. Roper has resigned as assistant superintendent of the Couch Mills, Thomson, Ga., to become overseer carding at the Bradley Manufacturing Company, Columbus, Ga.

James B. McLaughlin has resigned as overseer of the cloth room at the Beaumont Mills, Spartanburg, S. C., to become overseer finishing and shipping at the Dacotah Mills, Lexington, N. C.

L. A. Funderburk, who was superintendent of the Bearskin Cotton Mills, Monroe, N. C., before it was reorganized as the Monroe Mills Company, will continue as superintendent under the new management.

Harry Morrow Accepts Position with Charlotte Mfg. Co.

Harry Morrow, formerly with the Joseph Sykes Bros., has accepted position with the Charlotte Manufacturing Company as salesman for their card clothing.

Mr. Morrow has had many years' experience in the card clothing business and is well known throughout the South.

Overseers Club Entertained.

The Overseers Club of the Riverside and Dan River Mills, Danville, was recently entertained at an elaborate dinner at the Sykes Farm, near Danville. Following the dinner, E. J. Wentz, president of the club, called on H. R. Fitzgerald, who delivered a brief inspirational address that held the close attention of his audience.

Other than the members of the club the guests were: H. R. Fitzgerald, Geo. W. Robertson, H. M. Martin, C. D. Gaver, H. E. Spessard, L. J. Rushworth, C. E. Clark, George Douglas, M. A. Godfrey and Mill M. Hundley.

Engineer Killed in Clinton Mill.

Clinton, S. C.—Clarence Bishop, aged 20, lost his life here from injuries sustained when the cylinder head blew off of the large engine in Clinton Cotton Mills No. 1.

The cylinder head itself barely missed Bishop, one of the bolts striking his body. He was badly scaled from the steam and died a few hours after being rushed to the Hays hospital, where every medical attention was rendered. The cylinder hit the wall near where Engineer Bishop was sitting with such terrifice force that it penetrated through the brick wall and passed on into the boiler room.

Monroe Cotton Mills.

Monroe, Ga.

17,500 spinning spindles; 370 looms.

J. Wheeler Mears, Sr.	Supt.
J. H. Perkins	Carder
J. C. Eller	Spinner
S. W. Emgram	Weaver
W. A. McDonald	Cloth Room
Guy Wallace	Master Mechanic

B W C
TRADE MARK
WARP TYING MACHINES HAND KNOTTERS
WARP DRAWING MACHINES
AUTOMATIC SPOOLERS HIGH SPEED WARPERS
BARBER-COLMAN COMPANY
BOSTON, MASS. GREENVILLE, S.C.
MAIN OFFICE AND FACTORY:
ROCKFORD . ILL . U . S . A.

Bobbins and Spools

Particular attention given to

All Types Of Warp Bobbins For Filling Wind

Samples of such bobbins gladly furnished

The Dana S. Courtney Co.
Chicopee, Mass.
A. B. CARTER, Southern Agt, Gastonia, N. C.

Leno And Marquisette Weaving

Our leno doups for weaving marquisettes and fancy leno weaves are universally accepted as the only satisfactory solution of leno weaving.

In fact, by using our doups, any weave room with dobby looms can make a leno stripe as easily and at as low cost as any ordinary fancy fabric and, that, too, without any extra attachments to the loom whatever—no, not even a jumper or a slackener attachment is required.

STEEL HEDDLE MFG. CO.
GREENVILLE PHILADELPHIA PROVIDENCE

"Duplex" Loom Harness—complete Frames and Heddles fully assembled
Selvage Harness
Leno Doups
Harness Frames
Jacquard Heddles

SOUTHERN PLANT
Greenville, S. C.
HAMPTON SMITH
Southern Manager

Drop Wires
Nickel-Plated
Copper-Plated
Plain Finish
Improved Loom Reeds
Leno Reeds
Lease Reeds
Combs

MILL NEWS ITEMS OF INTEREST

Jacksboro, Tenn.—The Campbell Knitting Mills have been incorporated with a capital stock of $100,000 by M. E. Baird, R. L. Moore and E. J. Beever.

Easley, S. C.—The Alice Manufacturing Company has placed contracts for 12,000 additional spindles which are to be installed as early as possible.

Pendleton, S .C.—The Riverside Mfg. C., No. 3 which has been shut down since early spring will resume operations next week. The mill is a branch of the Riverside Mfg. Co., at Anderson.

Newman, Ga.—The Newman Cotton Mills have placed orders for about 5,000 spindles and some additional card room machinery, all of which will be used to replace old machinery.

Knoxville, Tenn. — The Attix Hosiery Mills will erect a two-story building at Morgan and Hudson Avenues, the building to be 32x90 feet. The company will also build a dyehouse 18x33 feet. E. D. Attix, 721 No. Central Ave., is president.

Monroe, N. C.—The Monroe Mills, formerly the Bearskin Cotton Mills were opened under the new management this week. The plant has been thoroughly overhauled and some new machinery installed on the third floor which previously held no equipment. R. W. Morrow, of Monroe and the Johnston interests of Charlotte, purchased control of this mill some time ago when it was sold by the receivers.

Newton, N. C.—The Carolina Glove Mill, founded and operated by the late J. Clarnece Yount, has been sold by his estate to E. A. Smith, mill man of Charlotte, and associates. The company has been organized under the name of the Carolina Glove Co., and was placed in operation this week.

The mill employs 75 people and is almost new. It manufacturés cotton gloves. E. A. Smith Jr., will be manager.

Little Rock, Ark.—The first cotton mill attracted to Arkansas by hydro-electric power will be in operation in Pine Bluff within five months. Contract was closed lately by the Chamber of Commerce with Leroy A. Beers and associates of Amsterdam, N. Y., for erection and poeration here of a 10,000 spindle mill and spinning mill to utilize half the output of the spinning mill. Local business men subscribed $150,000 of $250,000 capital of the company. The mills will employ between 200 and 300 persons, and will be operated with power from Remmel hydro-electric station on the Ouachita river.

THE FARISH COMPANY
COMMISSION MERCHANTS
100 WORTH STREET
NEW YORK

WENTWORTH
Double Duty Travelers
Last Longer, Make Stronger Yarn, Run Clear, Preserve the SPINNING RING. The greatest improvement entering the Spinning room since the advent of the HIGH SPEED SPINDLE.
Manufactured only by the
National Ring Traveler Co.
Providence, R. I.
31 W. First Street, Charlotte, N. C.

KNOXALL ROLLER CLOTH
(Virgin Wool)
Edward H. Best & Company
222 Purchase St.
Boston, Mass.

K-A Electrical Warp Stop For Looms
is backed by twenty years of experience and steady growth. It is adopted by representative mills weaving cotton, silk, worsted and woolens.
R. I. Warp Stop Equipment Co.
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LANDSCAPE ARCHITECT and ENGINEER
Town Planning and Mill Village Developments
Parks, Real Estate Subdivisions and Cemeteries
Resort Hotels and Country Clubs
Private Estates and Home Grounds
Complete Topographic Surveys
General Designs, Planting, Grading and Detail Plans
Supervision of Landscape and Engineering Construction
Sewer and Water Development
Largest Landscape Organization in the South

Mexia, Texas.—The new Mexia Cotton Mills have let contract to Inge Construction Co., to erect their mill building. The mill will have 5,000 spindles and ninety-six 30-inch looms, and thirty-two 40-inch looms for making flat duck. Electric power will be generated by using a tandem compound condensing engine. The looms were purchased from Stafford Co., Readville, Mass. Plans for the mill are by Robert and Co., Atlanta Ga. J. K. Hughes is president of the Mexia Mills, Perry Burrus, general manager.

Winston-Salem, N. C.—The P. H. Hanes Knitting Co., is now runing full time after being closed for several weeks. The company has received large orders recently, according to the officials and have enough business on hand to justify capacity operations for some time to come.

A new garment will be placed on the market by this company, a light union suit for spring and fall wear.

Winston-Salem, N. C.—The Hanes Finishing Co., is being organized here to erect a large plant for dyeing, bleaching and finishing cotton goods and underwear. The incorporators will include Robert M. Hanes, of the Wachovia Bank and Trust Co., Ralph Hanes, Thurman Chatham and H. A. Jolitz.

An abundant water supply is available from a large creek near this place and it is understood that the Hanes Finishing Co., will be one of the most modern and best equipped finishing plants in the country.

Greenville, S. C.—The new Southern Weaving Mill has closed contract with the Ford Motor Co., to supply the latter with 1,000,000 feet of transmission lining for Ford cars. The plant is being put into operation now, and installation of all machinery will be complete within a short time. It is in the building formerly occupied by the Greenville plant of the Shambow Shuttle Co.

The company will manufacture cotton specialities, such as transmission lining, brake bands, and similar goods. It has an initial equipment of 22 looms and the necessary spindles. J. W. Burnett is manager.

Blacksburg, S. C.—Reorganization of the Cash Mils under the name of the Blacksburg Spinning Co., has been perfected, al of the stock for the new corporation having been subscribed. S. A. Sifford, of Clover, S. C., is president, C. N. Alexander, also of Clover, is treasurer and manager.

The building for the mill was begun a year ago, but was not completed before the death of E. R. Cash, the organizer of the company. The work of completing the building and erecting 25 houses in the village will be started at once. The main mill is brick, two stories and basement, and was planned by J. E. Sirrine and Co., of Greenville.

Contracts have been let for 5,000 spindles and necessary equipment, delivery of the machinery to be started in October. The output will be kniting yarrns, 14s to 16s. The plant will be electrically driven.

Consolidated Textile Corp. Plans Reorganization

Reorganization of the Consolidated Textile Corporation, the largest manufacturers of cotton goods in the country, was made necessary by the default Tuesday of the interest payment of the $7,393,000 outstanding 7 per cent 10-year bonds of B. B. and R. Knight, Inc., which operates 17 mills in Massachusetts and Rhode Island. Executive offices of the company are in New York.

The Consolidated Textile Corporation owns the entire common stock of the Knight company, which in turn, owns the entire common stock of Converse & Co., selling agents for the Consolidated, Knight and other mills.

Unfavorable conditions in the textile industry forced the closing of the Knight Mills, impairing working capital and causing large losses. B. B. and R. Knight was incorporated under the laws of Massachusetts in September, 1920, with a perpetual charter, succeeding a Rhode Island corporation of the same name, which was one of the largest manufacturers of cotton cloths in the world. The Consolidated Textile Corporation was organized on September 27, 1919, under the laws of Delaware. It was acquired either directly or through stock ownership the business and assets of the Pilot Cotton Mills Company, of Raleigh, N. C., James N. Williamson & Sons Co. (Ossipee and Hopedale Mills), of Burlington, N. C., Ella Manufacturing Company, of Shelby, N. C., Lynchburg (Va.) Cotton Mills Company, Windsor Print Works, North Adams, Mass., Pelham (Ga.) Manufacturing Company, Bonham (Texas) Cotton Mills, Henderson (Ky.) Cotton Mills and the Union Cotton Mills, of LaFayette, Ga. The company also has a large stock interest in the Exposition Cotton Mills, of Atlanta, Ga.

The original organization plan for the consolidation provided for the liquidation of $9,500,000 bank loans by the payment of 30 per cent in cash and the remainder in 5-year notes and the liquidation of Converse & Co. and the organization of a new selling company capitalized at $3,000,000. The Kelsey Textile Corporation sought to enjoin the consolidation and compel the payment of $1,200,000 but the application for an injunction was denied.

It is understood, however, that the Kelsey action resulted in the withdrawal of some of the minor interests who previously had assented to the reorganization plan. Efforts are being made, however, to induce the interests to reconsider their action and permit the carrying out of the original program.

Meanwhile, a tentative bondholders' committee has been formed including representatives of the investment firm of Harris, Forbes & Co. and E. H. Rollins & Sons. The present plan of the committee, it is understood, is to hold the properties intact until a change in the textile trade situation will permit either the successful operation or the profitable sale of the Knight plants. Six months is allowed before foreclosure.

Curtailment Decreases.

The largest increase in production since curtailment among cotton mills became general, is noted among the mills in the Carolinas this week, it being estimated that the output for the week will show a gain of between eight and nine per cent over the curtailment figures for the past two months.

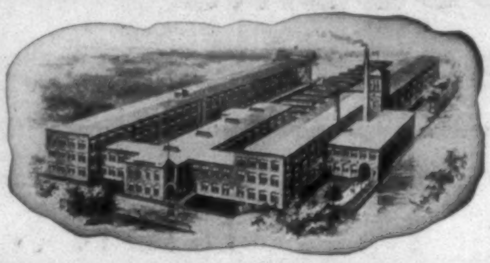
This increase is estimated from reports from various mills, and from the record of the mill power load of Southern Power Co. From the latter, it is learned that power furnished to mills this week shows an increase of eight and one-half per cent over the previous week. For some time past, curtailment in North Carolina has been estimated at 25 per cent. The figure for this week is placed at 16 per cent.

LOOM STRAPPING

Check Straps--
Hold-ups--
Lugs,
Binder Straps--
folded and stitched, cemented—
Rounded and flat
Harness Straps--
Power Straps--
Bumpers--
Friction Discs--

We specialize and know your looms.
Ask your jobber.

The Druid Oak Belting Co., Inc.
Baltimore——Boston

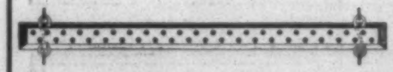


GREIST
LOOM
DROP WIRES

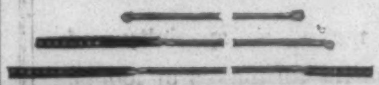
All we ask is the opportunity to quote you—send sample of wire with request for quotation—we will submit samples of our product—prompt deliveries and unlimited capacity for large orders—small requirements receive the same attention.

THE GREIST MFG. CO., Dept. R, New Haven, Conn.
Southern Representative:
James McCabe, P. O. Box 219, Greenville, S. C.

Improved Dobby Chain



Dobby Cords



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Millbury, Mass.
Send Us Your Order Today

EMMONS LOOM HARNESS COMPANY
The Largest Manufacturers of Loom Harness and Reeds in America
Loom Harness and Reeds
Slasher and Striking Combs, Warps and Leice Reeds.
Beamer and Dresser Hecks, Mending Eyes, Jacquard Heddles
LAWRENCE, MASS.

Joseph L. Davidson Co.
Established 1889
Designing *Card Stamping* *Repeating*
FOR ALL TEXTILE FABRICS
2525 N. Second St., Philadelphia, Pa.

WELL DRILLING AND DEEP WELL PUMPS

We do the engineering, and have had 32 years experience solving water problems satisfactorily for textile mills.

Sydnor Pump & Well Co., Inc.
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THE CHOICE OF A HUMIDIFYING SYSTEM

must be one that for simplicity with great capacity and economy in maintenance produces uniformly such conditions that may be determined for the different requirements of the work. In the American Moistening Company's method of humidifying, all such requirements are GUARANTEED

Our COMINS SECTIONAL HUMIDIFIERS
Our FAN TYPE and HIGH DUTY HUMIDIFIERS
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Our AUTOMATIC TEMPERATURE CONTROL
Are all STANDARDS OF MODERN TEXTILE MILL EQUIPMENTS

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RUSSELL GRINNELL, President
BOSTON, MASS.
FRANK B. COMINS, General Manager
SOUTHERN OFFICES, 276 Marietta St., Atlanta, Ga., No. Charlotte, N. C.

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EXPORTERS—MANUFACTURERS—IMPORTERS
of any kind of Preparations for

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SIZING SOFTENING FINISHING WEIGHTING

for all Textile Purposes

Sizing Preparations, Tallows, Filling Materials, Printing and Stiffening Gums, Rosin Soaps, Dextrines, Soluble Oils, 50%-75% Guaranteed

Boil-Off Oil **Degumming Oil** **Hosiery Oil**

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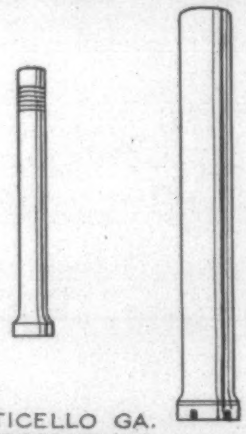
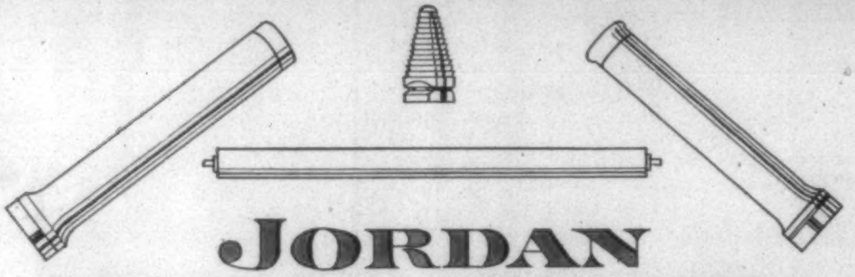
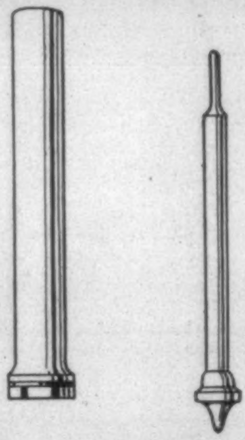

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The Standard of The World For Tests of Fabrics, Yarns, Twines, Etc.

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Manufacturers of Speeders, Skewers, Warp Bobbins, Filling Bobbins, Cap Spinning Bobbins, Northrop Loom Bobbins, Twister Bobbins, Twister Spools, Warper Spools, Comber Rolls, Quills, Underclearer Rolls (plain or covered).

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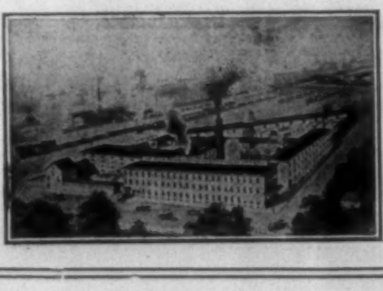
We make a specialty of Shuttles for all makes of looms, both plain and automatic. Correspondence solicited.



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President

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Treasurer

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Lawrence, Mass.
All Our Products Made in One Up-to-the-Minute Factory Group
"HIGH GRADE"
Bobbins, Spools and Shuttles

Correspondence Solicited Catalog on Request

Cost Figures of Southern Dry Goods Wholesalers

(Continued from Page 21)

spent less than four per cent of their net sales for this item; that is, less than $36,000 for a representative firm with sales of $900,000.

Total salesforce expense covered all payments of salaries, commissions, bonuses, and traveling expenses of salesmen, including store salesmen, road salesmen, sales managers, and executives spending part of their time in selling. Because of differences in methods of remunerating salesmen and paying their traveling expenses, it was not feasible to work out separate common figures for salaries, commissions, and bonuses of salesforce, or for traveling expenses.

Of the 71 firms that submitted comparable statements for 1923, all but two reported losses from bad debts. Figures reported for this item ranged from below 0.3 per cent to over 3.5 per cent of net sales. Eighteen firms reported this item to be in excess of 1.5 per cent, while 14 showed less than 0.5 per cent. The common figure for this expense was one per cent, or an amount of $9,000 for a typical firm with net sales of $900,000. This figure indicates heavier losses from bad debts in relation to net sales than hitherto have been found by the Bureau in its studies of wholesale trades. Apparently dry goods wholesalers in the South have been faced with particularly difficult credit conditions. In 1923, losses from bad debts amounted to a common figure of 0.4 per cent for the wholesale grocery trade, and in 1922, 0.4 per cent was the representative figure for both the wholesale grocery and the wholesale drug trades.

Among the individual firms reporting particularly low total expense figures was one with net sales of less than $500,000 that had total expense amounting to 12.4 per cent, and a net profit of 4.1 per cent of net sales. This firm turned its stock 7.1 times in 1923. Its total salesforce expense was four per cent as compared with the common figure of 5.7 per cent for all firms reporting; its outlay for wages of receiving and shipping force amounted to 0.25 per cent, or less than one-third of the common figure of 0.8 per cent; and its total executive and office salaries amounted to 2.6 per cent, or 0.2 per cent less than the common figure of 2.8 per cent. At the same time, the gross margin for this firm was more than one per cent under the common figure.

A firm whose net sales volume was among the largest reported to the Bureau from this trade showed total expense of 14.2 per cent, as compared with the common figure of 16.6 per cent for all firms reporting. Total salesforce expense for this firm was 4.5 per cent, as compared with the common figure of 5.7 per cent; wages of receiving and shipping force amounted to 0.4 per cent, as compared with the common figure of 0.8 per cent; and total executive and office salaries were 2.2 per cent, as compared with the common figure of 2.8 per cent. The rent of this firm was 0.6 per cent of net sales, slightly less than the common figure of 0.7 per cent, total interest was 2.6 per cent, as compared with the common figure of 2.8 per cent, and the item of losses from bad debts was 1.7 per cent, or 0.7 per cent in excess of the common figure of one per cent. Thus, it is evident that economies were achieved in spite of heavy losses from bad debts. The results attained by this firm cannot be attributed merely to its large sales volume and any consequent reduction of the fixed charge ratio, but rather to savings effected in the direct expense of salesforce, wages of receiving and shipping force, and total executive and office salaries. This firm's rate of stock-turn was 1.6 times for the year.

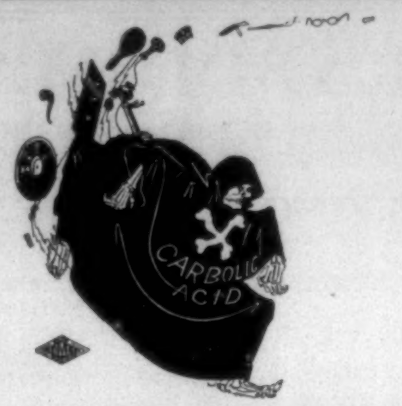
It seems evident from these two instances that economies can be effected regardless of the size of a firm's volume of sales.

Position Wanted

By young man 23 years, University graduate with M. A. in Economics. Desires office work in small progressive cotton mill with prospect of share in business and place as secretary or treasurer. M. A. S., care Southern Textile Bulletin.

Philippine Islands Have Slow Trade.

The Philippine textile market was slow throughout the month of July with retail trade dull and very little indenting. Stocks of grey sheeting are fair and the demand good. Chinese weaves are still in control of the market. The price of 36-inh 3 yard, 48 by 48 American grey sheting from imports stocks has declined from 13.50 pesos ($6.25) last month to 11.50 pesos ($5.75) per piece of 40 yards. Bleached sheeting stocks are sufficient for the fair demand with heavy shipments coming forward. Bleached sheetings are selling from importers' stocks at 11.25 pesos per 36-inch piece of 36-nich, 68 by 72, 4¾ yard goods compared with 11 pesos ($5.00) in July. Japanese weaves continue to dominate the market for grey drils and they are also extending their competition to the lower counts of bleached and colored drills. Stocks of all classes of drills are rather low, but the demand is seasonally good. Stocks of chambrays, khakis (both English and American), and denims are somewhat small and business in the first two lines is seasonally good but only a fair inquiry for denim. In the lighterweight denims, the Japanese appear to be increasing their sales. Organdies and voiles are out of season with stocks heavy and the demand yoor. Stocks of prints are somewhat heavy with a good demand for both light and dark grounds. Two color, 24-inch, 56 by 44 prints with libht grounds are quoted at about 15½ centavos)$0.07¾) and 3-color 36-inch, 64by 60 goods at from 27 by 28 centavos ($0.13½) to ($0.14) per yard. —(Cable from Acting Trade Commission Chas. P. Goodhue, Manila, August 24.)



A Deadly Poison

Carbolic Acid is derived from Coal Tar

Aside from being a strong disinfectant and antiseptic, it is the base of manufacture of Bakelite, Condensite and other substances used in pipe stems, hair pins; insulating material for telephones, radio, automobiles; talking machine records and numerous commercial articles.

BLUE COALS DIAMOND

Blue Diamond Coal Sales Co.

Cincinnati Knoxville Atlanta
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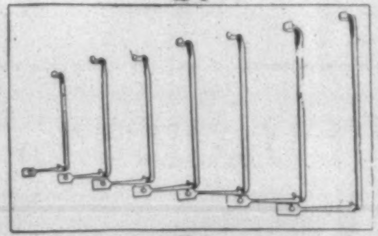
IT is not alone the design, nor the completeness of the line, that has built up a steady increasing demand, during our twenty-five years of service to the Textile industry, for our Quality FLYER PRESSERS. It is the deep faith in their structural superiority—the feeling that they can be trusted in any mill—the knowledge that they will fit—will stand up—that the price is just right. All of which greatly increases the year's profits.



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Catalog and Prices on Request

Southern Spindle & Flyer Co., Inc.

We Manufacture, Overhaul and Repair Cotton Mill Machinery

Charlotte, N. C.

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DARY TRAVELERS

If it's a DARY Ring Traveler, you can depend on it that the high quality is guaranteed—that the weight and circle is always correct, and that all are uniformly tempered which insures even running, spinning or twisting.

Ask for prices

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311 Somerset Ave. Fred H. Dary, Mgr. Taunton, Mass.

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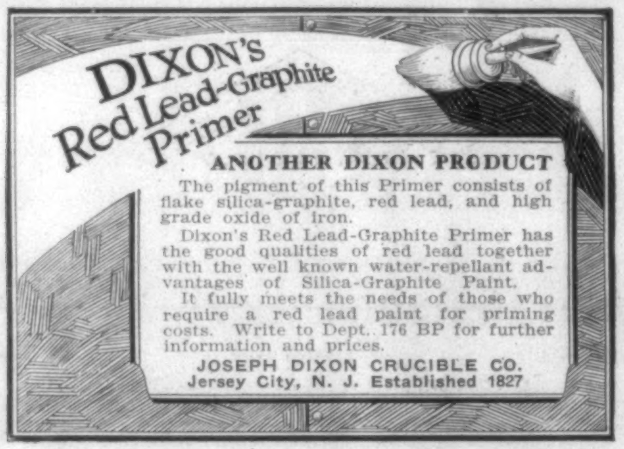
MILL WHITES, PAINTS, STAINS, Etc.
Write for Prices and Free Samples



DIXON'S Red Lead-Graphite Primer

ANOTHER DIXON PRODUCT

The pigment of this Primer consists of flake silica-graphite, red lead, and high grade oxide of iron.

Dixon's Red Lead-Graphite Primer has the good qualities of red lead together with the well known water-repellant advantages of Silica-Graphite Paint.

It fully meets the needs of those who require a red lead paint for priming costs. Write to Dept. 176 BP for further information and prices.

JOSEPH DIXON CRUCIBLE CO.
Jersey City, N. J. Established 1827

A Dangerous Competitor—FIRE

Fire insurance adjustments will recoup your losses, but cannot help you fulfill contracts or replace profits that you didn't make.

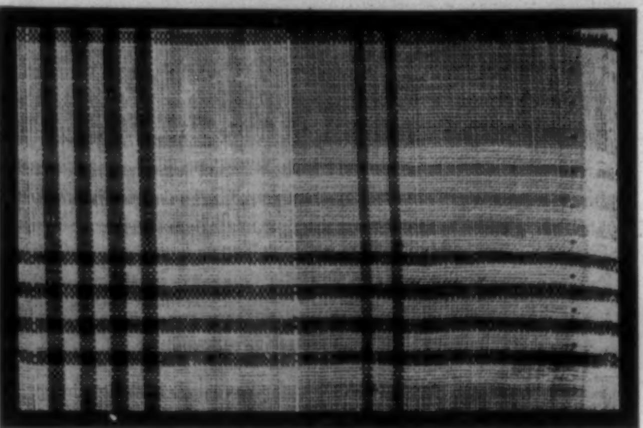
Over 70% of the cotton spindles of the United States and Canada are insured in the New England Factory Mutual Insurance Companies. To be able to say that your factory complies with the standards set by these companies, goes a long way in convincing your customers and your bank that you will be able to fulfill your contracts as to delivery dates.

For the purpose of furnishing better service to our present and prospective members, we have located a representative in the South. Write him today for full information.

Firemen's Mutual Insurance Company
G. H. STEUART, Southern Representative
2123 Greenway Street
Charlotte, N. C.

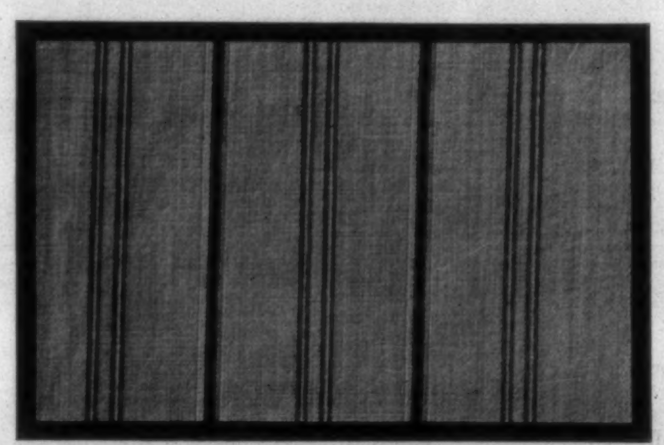
Imported Cotton Cloths

From Survey of United States Tariff Commission.



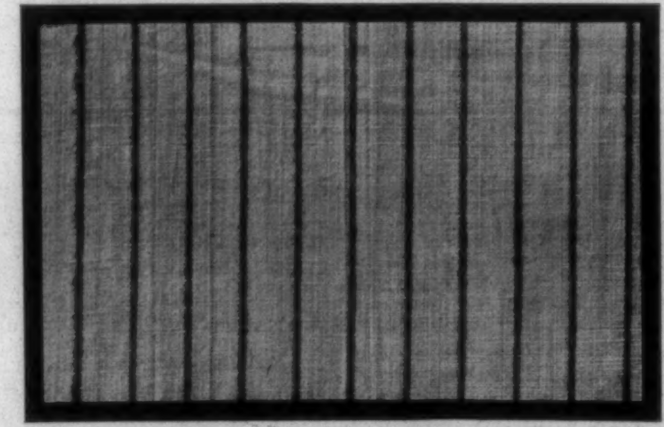
Sample No. 50.—Plaid Gingham.

Plain woven on box loom. Finished width, 31½ inches.
68 ends and 57 picks per square inch, finished
Warp yarn, 31s, dyed, 31s, bleached. Filling yarn, 41s, dyed, 41s, bleached.
Weight, 6.90 linear yeards (6.04 square yards) per pound, finished.
White, black, blue, and brown in both warp and filling.



Sample No. 51.—Corded Shirting, Striped.

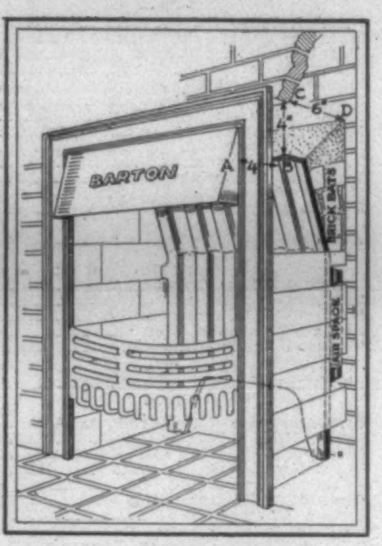
Plain woven. Finished width, 32 inches.
88 ends and 82 picks per square inch, finished.
Warp yarn, 33s, dyed, and 14/2warp cord, bleached. Filling yarn, 43s, bleached.
Weight, 5.07 linear yards (4.51 square yards) per pound, finished.
Black and white warp; white filling.



Sample No. 52.—Striped Shirting.

Plain woven. Finished width, 31 inches.
89 ends and 78 picks per square inch, finished.
Warp yarn, 37s, bleached, 37s, dyed. Filing yarn, 52s, bleached.
Weight, 6.19 linear yards (5.33 square yards) per pound, finished.
White warp with black stripes; white filling.

The Permanent Way to Make Repairs, is to Use Metal Fire Backs.



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They are lighter and stronger, made of perfect 3-ply Veneer Packing Case Shooks. A saving of 20 to 80 pounds in freight on every shipment because of extreme lightness. Stronger than inch boards burglarproof, waterproof and clean. Write for prices and samples. Convincing prices—Quick service.

Wilts Veneer Co., Richmond, Va.

Pressing and Calendering Knitted Fabrics.

(Continued from Page 16)

work required on the goods in process of treatment. In other calendering machines much is placed on roller surface and weight to get a beautiful finish on the goods.

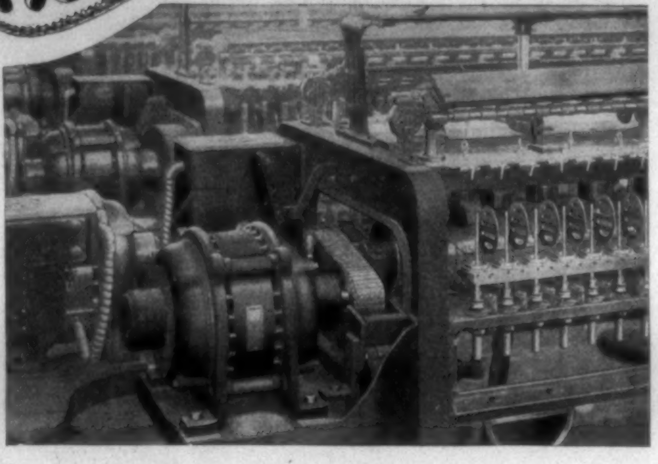
Much depends on the nature of the cotton or cotton mixed goods and the character of the finish desired as to what kind of calendering shall be used. If pressure is exerted on the goods during the calendering, a soft silky lustre is given by the equal flattening of all of the threads. But it is not desirable that all cotton or cotton mixed knit goods be pressed. If two folds of continuous fabric are passed at the same time between the rollers, the loops of one make an impression on the other, and give a wiry appearance with hollows in some cases between the loops. A water surface effect is produced by passing the fabric in a damp state through the calender with cold rolls, plain or indented, with a slight lateral motion.

Starching to Gain Stiffness in the Goods.

If the goods are of a class which require a certain degree of stiffness in the finish, the starching process is applied during calendering by making a mixture of flour deprived of gluten by fermentation in water. About one pound of flour to one gallon of water is the proportion. In order to get a blueish tint to the mix a little indigo is added. Calcined plaster of Paris or porcelain clay or similar substance are added in small amounts to give body to the mix, which is applied to the goods in a stiffening mangle built with brass rollers and provided with levers for controlling the pressure on the goods as they are drawn through the through the through containing the starch. While much of the starching mix is removed at the first washing of the goods, enough will remain to maintain the desired stiffness in the fabric if this feature is essential to the wearing quality and appearance of the garment.

Fillings for knitted fabrics are employed to increase the body and stiffness, to increase the weight and to improve the handle. Some knitted fabrics are so loosely constructed and made of such low grade stock that it is necessary to give them some form of stiffening treatment in order to make them strong enough to be serviceable. In addition to the starchy composition above mentioned, glues, gelatines, seaweed extracts, farrina, dextrine, sugar or glucose, Irish moss, and china clay are used, most of which accomplish the desired purpose until the garment has been to the laundry a few times when the stiffening and filling ingredients will have been pretty well washed out, leaving the texture in its original flimsy state. Still, many of the goods containing light fillings are permanently improved in appearance, feel and wearing quality by the addition of the same.

MORSE SILENT CHAIN DRIVES



7--1-2 H. P. Morse Silent Chain driving spinning frames in a southern mill. Driven 1750 R. P. M., driven 1250 R. P. M., centers 8--1-2 inches

Improves Yarn Quality

Morse Silent Chain Drives transmit 98.6% of the motor horsepower developed with constant and positive speed ratios. Improve the quality of the yarn by eliminating pulsating yarn at the traveler—a common cause of broken yarn when belts with their varying speeds are used. Morse Chains also prevent loss due to fly and dirt from pulleys and belts getting into the work. Cleaner yarn is produced and customers better satisfied.

Let Morse Engineers help you.

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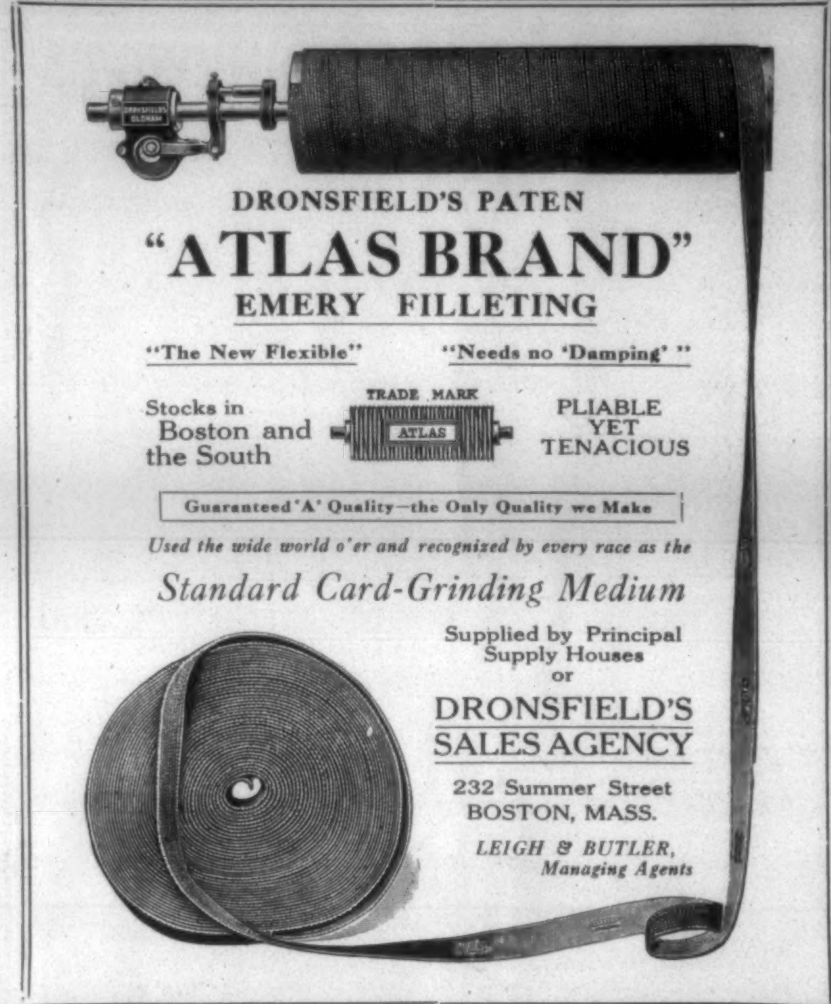

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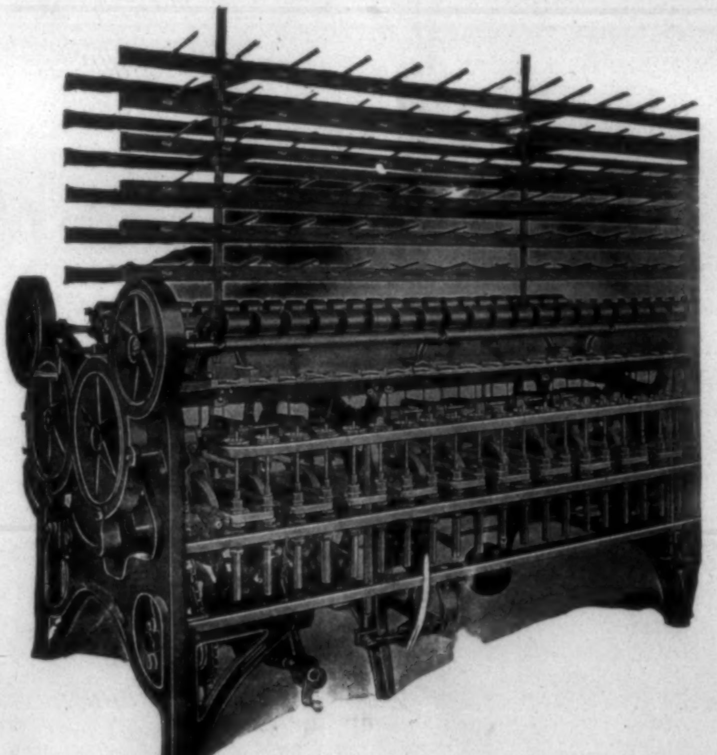


Save 50 per cent. operative power

Produce more even yarn

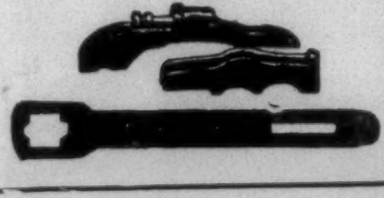
TAPE-DRIVEN TWISTERS

COLLINS BROTHERS MACHINE COMPANY, Pawtucket, R. I.

Index To Advertisers

Where a — appears opposite a name it indicates that the advertisement does not appear in this issue.

	Page
—A—	
Alils-Chalmers Mfg. Co.	8
American Laundry Machinery Co.	—
American Moistening Co.	25
American Textile Banding Co.	—
American Trust Co.	41
Amory, Browne & Co.	36
Anchor Post Iron Works	16
Arabol Mfg. Co.	26
Arkansas Cotton	33
Arnold Hoffman & Co.	—
Ashworth Bros.	42
Atlanta Brush Co.	—
Atlanta Harness & Reed Mfg. Co.	35
Atlantic Dyestuff Co.	—
—B—	
Bahnson Co.	13
Baily, Joshua L. & Co.	36
Bancroft, Jos. & Co.	—
Barber-Colman Co.	23
Barber Mfg. Co.	—
Barton, Ernest L.	29
Best, Edward H. & Co.	24
Blue Diamond Coal Sales Co.	27
Borne, Scrymser Co.	21
Bosson & Lane	43
Brown, David Co.	26
Brown St. Onge Co.	—
Butterworth, H. W. & Sons Co.	—
—C—	
Carolina Specialty Co.	—
Carrier Engineering Corp.	—
Catlin & Co.	37
Charlotte Leather Belting Co.	44
Chicago Belting Co.	—
Chicago Fuse Mfg. Co.	18
Clipper Belt Lacer Co.	—
Cocker Machine & Foundry Co.	42
Collins Bro. Machine Co.	30
Converse & Co.	36
Cooper-Hewitt Electric Co.	—
Corn Products Refining Co.	2
Courtney, Dana S. Co.	23
Crompton & Knowles Loom Works	6
Curran & Barry	36
Cyclone Fence Co.	15
—D—	
Dan Gear Co.	35
Dary Ring Traveler Co.	28
Davidson, Jos, L. Co.	25
Diamond State Fibre Co.	19
Dixon Crucible Co. Joseph	28
Dixon Lubricating Saddle Co.	30
Drake Corp.	29
Draper, E. S.	24
Draper Corp.	1
Dronsfield Bros.	30
Druid Oak Belting Co.	25
Duplan Silk Corp.	17
DuPont de Nemours, E. I. & Co.	—
—E—	
Economy Baler Co.	43
Emmons Loom Harness Co.	25
Entwistle, T. C. Co.	—
—F—	
Fafnir Bearing Co.	—
Fales & Jenks Machine Co.	31
Farish Co.	24
Firemen's Mutual Insurance Co.	28
Ford, J. B. Co.	31
Franklin Process Co.	—
—G—	
Garland Mfg. Co.	—
General Electric Co.	—
Grant Leather Corp.	—
Graton & Knight Mfg .Co.	—
Greist Mfg. Co.	25
—H—	
Hepworth, Jno. W. & Co.	16
H. & B. American Machine Co.	10
Hetherington, John & Sons Co.	—
Hollingsworth, J. D.	43
Hopedale Mfg. Co.	—
Houghton, E. F. & Co.	3
Howard Bros. Mfg. Co.	—
Hyatt Roller Bearing Co.	—
—J—	
Jackson, Hill & Co.	—
Jacobs, E. H. & Co.	—
Johnson, Oliver & Co.	—
Jordan Mfg. Co.	26
—K—	
Kaumagraph Co.	11
Keever Starch Co.	—
Klauder- Weldon Dyeing Machine Co.	38
—L—	
Ladew, Edward R. Co.	14
Langley, W. H. & Co.	36
Leslie, Evans & Co.	36
Lestershire Spool & Mfg. Co.	—
Link-Belt Co.	—
Lockwood, Greene & Co.	—
Lowell Shuttle Co.	—
—M—	
Macrodi Fibre Co.	—
Marston, Jno. P. Co.	37
Mathieson Alkali Works	—
Memphis Cotton	34
Mauney Steel Co.	37
Merrow Machine Co.	33
Metallic Drawing Roll Co.	41
Metz, H. A. & Co	43
Minter Homes Co.	—
Mississippi Cotton	35
Moreland Sizing Co.	32
Morse Chain Co.	29
Mossberg Pressed Steel Corp.	41
—Mc—	
McCaughey, Edward J.	37
—N—	
National Aniline & Chemical Co.	—
National Ring Traveler Co.	24
Newburger Cotton Co.	34
N. Y. & N. J. Lubricant Co.	—
North Carolina Cotton	32
Norwood Engineering Co.	42
—O—	
Oklahoma Cotton	35
—P—	
Page Fence & Wire Products Ass.	39
Paige, Schoolfield & Co.	37
Parker, Walter L . Co.	—
Parks-Cramer Co.	—
Paulson, Linkroun & Co.	37
Pawtucket Spining Ring Co.	42
Penick & Ford, Ltd.	12
Perkins, B. F. & Sons	—
Puro Sanitary Drinking Fountain Co.	—
—R—	
R. I. Warp Stop Equipment Co.	24
Rice Doby Chain Co.	32
Ridley, Watts & Co.	37
Robinson, John L. & Co.	34
Roessler & Hasslacher Chemical Co.	—
Rogers Fibre Co.	—
Root Co	—
Roy, B. S. & Son	—
—S—	
Saso-Lowell Shops	9 & 38
Sayles Finishing Plants	—
Scott, Henry L. & Co.	26
Seaboard Ry.	—
Sellers, Wm. & Co.,	—
Seydel Chemical Co.	29
Seydel-Thomas Co.	—
Siggers & Siggers	35
Sirrine, J. E. & Co.	—
S. K. F. Industries	4
Sonoco Products	—
Southern Distributig Co.	23
Southern Raliway	—
Southern Spindle & Flyer Co.	27
Spinks, John D.	25
Stafford Co.	44
Steel Heddle Mfg. Co.	23
Stein, Hall & Co.	20
Sydnor Pump & Well Co.	25
—T—	
Tatum, Pinkham & Greey	36
Terrell Machine Co.	—
Texas Cotton	33
Textile Mill Supply Co.	—
Thomas Grate Bar Co.	38
Tolhurst Machine Works	21
Tripod Paint Co.	28
—U—	
United Chemical Products Co.	2
U. S. Bobbin & Shuttle Co.	26
U. S. Ring Traveler Co.	38
—V—	
Universal Winding Co.	38
Victor Ring Traveler Co.	43
Vogel, Joseph A Co.	—
—W—	
Washburn Printing Co.	—
Watson, L. S. Mfg. Co.	—
Wellington, Sears & Co.	36
Westinghouse Electric & Mfg. Co.	5
Whitin Machine Works	2
Whitinsville Spinning Ring Co.	29
Williams, J. H. Co.	43
Williams, I. B. & Son	—
Wilts Veneer Co.	29
Wolf, Jacques & Co.	—
Woods, T. B. & Sons Co.	39



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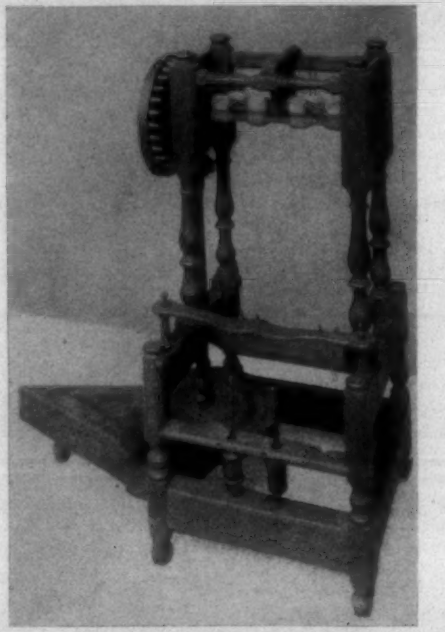
WRITE FOR SAMPLES

Romance of Cotton Machinery

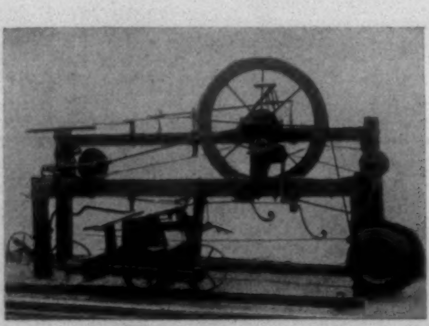
George Gannon, of the Whitin Machine Works, is writing a series of articles for the Whitin Spindle on "The Romance of Cotton Machinery." This month's article, which is reproduced below, gives a brief review of the early inventions of Hargraves and Crompton and the first attempts to start the industry in America.

James Hargraves, the inventor of the spinning jenny, was born near Blackburn, England, and worked at Stanhill as a carpenter and later as a weaver. In 1760 he built a crude type of card machine and thereafter was recognized as an inventor of note. In 1764 he built his first machine to spin cotton, and six years later the success of his machine brought him much fame, but almost proved his ruin later when his patent was for some reason proved invalid. He continued, however, as a yarn manufacturer until his death in 1778.



Arkwright's Spinning Jenny

All the promising inventors of England were now aroused over the wonderful possibilities of new machines for spinning cotton, and many types were erected, but Arkwright's claim finally proved strong enough to keep their machines from being put into extensive use.



Crompton's Spinning Mule

Probably it was this condition that forced Samuel Crompton, in 1776, to construct a radically new method of spinning cotton. His idea gave to the world the spinning mule. Mr. Crompton was born in Bolton, England, in 1753, and had worked at cotton manufacturing until he became an inventor about 1770. He sold his spinning mule for sixty pounds after working on it for five years. This invention revolutionized the manufacturing of British muslin and brought wealth to all except the inventor, who died a very poor man, in 1827.

Now that England had Watts' steam engine and machinery for cotton manufacturing, we find that the first steam power factory was built at Popplewick Notts, England, in 1785, and in the same year, Dr. Edmund cartwright, a friend of Arkwright, invented the power loom. Cartwright was an exceptionally bright man. It was after several close inspections in Arkwright's cotton spinning mills that the idea of a power loom came to his mind. He also took out patents for combing wool. He even joined Robert Fulton in his efforts at perfecting steam navigation.

In America in the meantime the Colonial Laws of England, which prohibited the manufacture of cotton, were overthrown by the Revolutionary War, and the Yankees started to manufacture cotton yarn in the first American mill at Beverly in 1788, and planted the first Sea Island cotton in America in 1789.

(Continued on Page 34)

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A FEW OF THE FACTS

Protection to the tensile strength of wool and cotton yarns, better penetration of the dyes or bleach, as well as absolutely clean goods are only a few of the many reasons for the continually increasing demand by mills the country over for the special purpose alkalies

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Then, too, when you compare the results obtained and the cost, you will be satisfied that these superior benefits do not add to your production expense.

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Research in the Cotton Industry

(Continued from Page 8)

of the general drafting problem to be made. Moreover, many of the testing machines at present in use are not particularly well adapted to give the information required, more especially regarding wearing qualities. Researches already completed have led to the design and construction of new instruments which are at present under searching examination. In this connection may be mentioned an instrument for determining the regularity of yarns, a second for ascertaining the regularity of slivers and rovings, and a third for investigating the stresses and strains occurring during the working of a loom. The practical utility of the above-mentioned instruments has already been proved.

One of the most important qualities of cotton to the manufacturer is its natural lustre, and the increase of this property by processes such as mercerizing, calendering and schreinering. A method has now been worked out whereby the lustre of raw cotton, yarns or cloth can be examined both qualitatively and quantitatively, and this seems likely to give important information in the near future. The above-mentioned lustre-producing processes are also being worked at from the fundamental aspect, as is also the action of light on cotton.

The question of the action of water and steam on cotton is one which affects all branches of the trade from the spinning of yarn to the latest finishing process. Available information is meager, and hence work is being mainly directed towards the acquisition of accurate scientific data on the subject. Progress is being made and as one practical outcome an instrument for registering the amount of water vapor in a steamer or ager has been designed.

A detailed examination has been made of many of the analytical chemical tests used for the control of bleaching and finishing operations, such as the Mthylene Blue test, copper number, and the phosphorus, nitrogen and ash contents. Further, a critical survey of the tests used for the detection of the so-called oxy- and hydro-celluloses (modified cellulose) has been completed, which has shown the necessity for a more detailed study of these substances and of the mechanism of their formation due to the action of bleaching agents on cotton. The work is well advanced, and will doubtless lead to a better understanding and more efficient control of the scouring and bleaching operations in the future.

The fat and wax content of raw cotton is of importance to the spinner and the finisher; to the former its presence is essential, whilst the latter regards it merely as something to be removed before the effect of his processes can make themselves thoroughly apparent. A detailed examination of the wax of a typical American and a typical Egyptian cotton has been completed, which shows that though the amount of fat and wax present in raw cottons may vary, yet in composition they resemble one another closely. Standard methods for the determination of fat and wax have been suggested and have been applied in ascertaining the fat and wax content of all the principal cottons now on the market. The next stage in the work concerns the elimination of fat and wax during the various scouring and bleaching operations, which has already proceeded well on its way to completion, though the introduction of new processes will always require control by the methods devised.

Importance of Sizing.

Sizing is of great importance to the manufacturer, and is at the same time one of the most difficult problems which the scientist can be called upon to investigate, dealing as it does with the non-crystalline starches, which belong to the comparatively new field of investigation called colloid chemistry and physics. The work in hand is almost entirely of a pioneering nature, necessitating first the working out of new methods of attack. The matter is further complicated by the fact that it is impracticable to carry out small sizing trials in mills, and hence a small scale machine has had to be built, which has now been proved to give results comparable with those obtained by mill practice. Apart from the fundamental work in progress, one of the main problems being attacked at the moment is the relation of the viscosity of sizing mixtures to the penetration of yarn by the size.

Reference has already been made to the subject of mildew, but its importance to the trade generally has decided that it should be regarded as a problem of first-class importance. Little reliable information is available, and the inquiry is likely to be a lengthy one, since it requires the isolation in pure culture of the actual mildews present in raw cottons or introduced during manufacture; an investigation of their life history, including conditions of growth, the possibility of the various antiseptics used to counteract growth, and the spotting effects caused more particularly in dyed and printed goods.

These examples must suffice to show the varied nature of the problems to be solved, and when they are considered in conjunction with the work before the cotton grower they show that the application of scientific method to the growing and using of cotton is one of paramount importance. It is not a local or even a national problem; it is one of the most pressing Imperial questions with which we are faced at the present period of our history, and one which demands the most earnest consideration of all concerned if the cotton trade is not to sink from the pre-eminent position which it has held in the past.

Colombia Taking More American Goods.

American white goods, which appear to be able to compete successfully with the British, are reported as improving.—(Acting Commercial Attache Carlton Jackson, Bogota, July 5.)

The Sept. 8th Cotton Report

The Government crop estimate of last Saturday placing the condition at 64.9 and the indicated yield at 12,956,000 bales was just a shade below the average of the private reports which preceded it. It afforded confirmation of the 13 million bale crop idea, however, and selling on that view of the outlook, previously checked by the uncertainty of the official figures, began in the Liverpool market before we opened here last Monday. December contracts sold off to 23.75 in the local market before the offerings were absorbed, but the market then showed evidences of having been over-sold during the progress of the decline of over 5 cents per pound from the high levels of late last month. Rallies of approximately a cent a pound from the lowest since then have been promoted by more numerous reports of deterioration, particularly from drouthy sections of Texas and parts of Georgia, but do not appear to have reflected any very material change of sentiment as to the ultimate outlook, and have probably left the market in an easier technical position.

The Government has now published the par values which will be used in the interpretation of the September 1st condition figures. As we figure them, the average of the state pars is 255.2 pounds of lint cotton per acre compared with an average 236.4 pounls for August16. On the basis of these figures, the condition of the crop between Aug. 16 and September 1st, might decline fully 4½ points without causing any scaling down of the indicated yield. In other words, if the condition as of September 1st is above 60.1, the indicated yield is likely to be correspondingly above the mid-August figure. It is a puestion, whether the more numerous deterioration reports which have been reaching here during the past two weeks have reflected more than a four point drop in condition since the middle of the month. These reports of deterioration have been coming chiefly from central and south Texas and from Southern Georgia. Only two of the private reports have been issued so far in anticipation of the next Government statement, and they are of a date so far in advance of the official canvass, that they can hardly be accepted as a safe guide to the coming Government figures. One of these reports issued by a Southern organization which has recently lost its organizer, makes the condition only 61 and the indicated yield 12,440,000 bales although it states that the Government report is likely to be 12,700,000 bales. Based on the Government September 1st pars, a condition of 61 would point to crop of over 13,000,000. The other report was more nearly in line with general sentiment, placing the condition at 64.0 and the indicated yield at 13,000,000 bales. Compared with the condition figures published by the Government as of August 16 neither of these reports would indicate that deterioration between that date and about August 23rd ahd been in excess of the allowance made for the period by the figures on par values. On the whole, then, the market here remains most generally of the opinion that the world will have an American crop of something over, rather than under 13 million bales to deal with this season (excluding linters), unless some unforseen damage occurs during the autumnal storm period or as the result of an early frost.

If we placed the estimated crop at 13,800,000 bales, including linters, the comparison is with a world's consumption of about 11,240,000 bales as estimated by Secretary Hester for the season recently ended. The question before the trade on the basis of that comparison, is the price at which the world will increase its consumption over last year, or the price at which it would be willing to carry a considerable addition to the reserve supply at the end of the season. Conjectures in either direction depend to some extent upon whether the comparative absence of boll weevil this season and present crop indications, are taken to mean a permanent recovery in the productive capacity of the South or merely a reflection of favoring weather condition beginning with low temperatures and heavy rains of last winter. If the former, the world might be prepared to hold off in the hope of even larger succeeding crops, but if the latter view prevails, it is unlikely that a crop even of the suggested proportions would bear heavily upon the world's markets at any price below the 23 or 24-cent levels as an average proposition.

The more immediate problem, however, is the probable effects of the now steadily increasing new crop movement and whatever the average price for the season, the market is not unlikely to sell well below it dring the period of expanding available supplies, unless the sentimental effect of cotton piling up in the South should be offset by some really definite impairment of crop prospects. On the whole, we would wish to see some indication of failing crop conditions or of materially improving trade demands before following advances, and are rather inclined to expect prices to work lower before the declining tendency is permanently checked by the process of trade absorption.

Venezuela Buys Much From Britian.

It is estimated that about 70 per cent of the cotton goods imported into this district comes from Great Britain. Less than 25 per cent comes from the United States. The principal item is cotton cloth, the total importation of which in 1922 was 101,724 kilograms valued at 976,212 bolivars. In 1921 the imports of cotton cloth amounted to only 64,167 kilograms valued at 767,137 bolivars.

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Romance of Cotton Machinery

(Continued from Page 31)

In 1793, Almy Brown and Slater pooled their resources and ingenuity and set up a very successful cotton mill. This mill consisted of 72 spindles with the necessary machinery for preparing the cotton for spinning. This preparation of cotton consiste dof hand picking, which amounted to about four pounds of cotton per day per person. Next came the slubber without a differential motion and then a fly frame. From the fly frame the roving was set in a creel and drawn through a three roll drawing frame and then over a guide bar that was wound on bobbins by means of flyers. There were eight spindle frames of Arkwright patent style. They were mostly all of wooden style. The product of this mill was cotton yarn which was sold by peddlers to the people in the countryside who wove it into cloth on crude hand looms.

Whitney's Cotton Gin

It was then seen that the power loom was an absolute essential if they were to be able to weave as much cloth as they could produce yarn for at the cotton mill, so we find that Kirk and Leslie procured the first American patent on the power loom in 1792.

The next great boom to cotton manufacturing was made by Eli Whitney, of Westboro, Mass., a graduate of Yale, who invented the cotton gin, thereby increasing the production of plain cotton a thousandfold.

Some Faults in Cotton-Piece Dyeing

(Continued from Page 14)

brings us back to the object of these notes: the avoidance of bad work. Where a shade is habitually and notoriously difficult to get even and well penetrated, either dye it in the padder at one or two runs or, if the shade is darkish, dye it half-way there and finish off on the jigger. Expensive, perhaps, but not so expensive as struggling half a day with a batch and then probably bringing it back again for "mending."

A source of indifferent—one can hardly say bad—work is to be found in the concentration of the dyebath. It was once fashionable to assume that the stronger the bath the quicker the dyeing, and that is no doubt true up to a point. It has the additional merit of saving salt. But it is worth while pointing out that it is a frequent cause of bad dyeing and is completely unnecessary. Anyone who has had to do with the dyeing of crepe or other similar cloths in beck dyeing machines with direct colors knows that the exhaustion of dyestuff there is out of all proportion to the theory which suggests that a strong bath is a generally desirable thing. In fact, with mercerized goods half an hour's dyeing in the beck with what must necessarily be a very weak bath will yield a shade only very slightly, if anything, under that given by the same proportions of cloth and color in a jigger. And it is mercerized goods that are most liable to show up faultily owing to too great a concentration of the dyebath. It is suggested that most dyeings would be the better for taking more water with them, and particularly is this the case when dyeing basic colors on tannin, where concentration is definitely disadvantageous — Textile Recorder.

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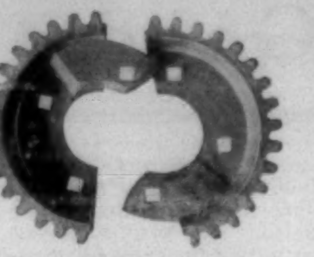

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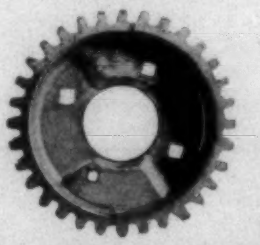

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Construction of Cotton Cloths.

(Continued from Page 10)

ing prodution the cloth is commonly constructed with one-third less picks than there are warp threads to the inch, but although the cloth may have a good appearance, the filling threads will not stand the same strain as the warp, and the cloth thereby is apt to split before the warp threads show much signs of wear and friction. The fact is that the relative strength of warp and filling have not been in correct proportion.

A more extreme example, of very common occurrence, is when a five-shaft or any other warp sateen method of inter-weaving is adopted with the object of showing the various colored stripes to advantage, but the structure is often abused by putting in a very weak filling and too few picks in proportion to the warp. The fewness of the picks per inch may be arranged merely for the purpose of quick production of the looms, or partly so as not to dull the appearance of contrasting colored stripe in the warp; the fineness of the filling is also partly for the latter reason, and, in the case of the workmen's shirting, a soft filling is woven into the cloth in order to make it feel soft to the skin. In this case, however, utility is often sacrificed to appearance, and after slight wear the shirt will often be seen hanging in shreds with the warp threads intact, but the filling threads broken and the cloth disintegrated.

For the purpose indicated, this kind of fabric structure represents worse than false economy; wasteful and deception in character, its production from the standpoint of sound business should be discouraged. With a greater proportion of filling of a higher character at a slight increased cost the softness of the feel need not be sacrificed, while the wear will be increased threefold.

Probably the fabric which lends itself to the greatest abuse in manufacture is that commonly known as flannelette. In this case a really bad structure, so far as proportion of warp and filling is concerned, is frequently hidden by surface treatment. Often enough the arrangement consists of what amounts to a merely temporary adhesion of a number of fibres; the fabric will not withstand the slightest strain, and if it becomes ignited the fire spreads over the surface almost as rapidly as in the case of a train of gunpowder.

Cloth used for shoe linings is often of unsuitable structure, and although a smart and glossy appearance may be presented when the shoe is new, yet, the fabric will begin to fray almost before the newness has worn off.

No claim is mentioned that all fabrics be found faulty or unsuitable for the purpose contemplated governed by the conditions governed by the considerations of minimizing the cost. Nevertheless, interference with sound principles of fabric structure too frequently arises as a result of disproportionately great consideration to the matter of so-called smart appearance.

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Cotton Goods

New York.—Although the cotton goods market were slow and buyers were hesitant after the issuance of the last Government cotton report, more interest in goods for later delivery was shown before the week ended. Inquires were numerous and covered a wide range of fabrics and a fair volume of business was handled by the end of the week. Mills and agents held prices steady, but got many inquiries and a scattered business on many lines of finished goods. Business from jobbers and retailers in the South, Southwest and Northwest was better than in other sections.

Production increased materially both in the East and the South. Denims have sold well into October, though ginghams and percales remained quiet. New prices on ginghams are expected next week. Wash goods sold moderately for spring requirements, wide sheetings, were quiet but prices held steady. In the fine goods centers, business in broadcloths, warp sateens and fine violes showed improvement. A much better business on ginghams and percales in anticipated within a short time.

Print cloths, sheetings and the more staple lines of convertibles were rather quiet during the week, but inquiry showed a much broader interest in these goods and prospects are for an improved demand in October.

Efforts to buy goods at lower prices were made in all quarters of the market, but except in the case of print cloths and other gray goods obtainable from stock, few agents would sell at concessions.

From 20,000 to 25,000 pieces of print cloths were sold Friday at slightly lower prices. For 38½-inch 64x60s, 8¾c was done with some mills, and 9¾c for 68x48s. It was possible to buy some 60x48s at 7 9-16c, and sales of72x76s were made at 11½c. It was stated that these prices were not obtainable generally. There was no breadth to the trading outside of these few constructions.

Sheetings held steadier than print cloths, but the demand was fitful, although several inquires are in for substantial quantities of goods if mills will be able to come nearer buyers' ideas for the last quarter of the year. Drills were quiet, with some constructions about ¼c easier than early in the week. Pajama checks can now be had at 11c in many places. Sateens continued in better call in the finer lines than in the staples in carded goods.

Inquiry for cotton ducks in moderate quantities for September and early October deliveries proved fairly active . Sales of single filling duck were reported made at 21c. Belting and hose duck was selling on a 2½c lower basis or at 43c per pound. A 2c drop was also reported in prices on wide drills and twills. Narrow enameling ducks were sold on a basis of 47c, or 1c lower.

There was no change noted in the quiet situation prevailing in the tire fabric markets. Sales were limited to small trading in this quarter.

The Fall River print cloth market for the week has been practially devoid of interest, with the result that sales are estimated at between 20,000 and 25,000 pieces. The volume is made up almost exclusively of 36-inch low counts, with sateens and wide and narrow print cloth styles absolutely dormant. The drop in cotton has resulted in indifference on the part of the buyers and Inquiry has been very light.

The week has been one of the slowest in some weeks, the downward fluctuation of the cotton market abruptly ending what sprint of business there was for a time.

The market service letter of the National Wholesale Dry Goods Association states: "Acceptance of the Dawes plan and the expected readjustment of European finances is generally regarded as the outstanding feature of the moment and one which will result in business improvement in Europe and America before the close of the year. Added to this are continued reports of improvement in this country, which come from agricultural and industrial sections. Some mills are said to be increasing operating schedules. These increases are not great, but many look upon them as an indication that the turnig point has been reached.

Cotton goods prices in primary markets were quoted as follows:

Print cloths, 24 inch 64x64s, 7 1-3c; 60x60s, 7c; 38 1-2 inch, 64x64s, 9 1-2c; brown sheetings, Southern standards, 15 3-4c; denims, 220s, 22c; tickings, 8-ounce prints, 10c; staple ginghams, 15c; dress ginghams, 18 1-2 and 21c, both gingham quotations being normal.

Chilean Business Dissappointing

Orders for summer textiles during the past season have been disappointing and retailers in the central region have been unable to move their winter stocks owing to a mild season and restricted buying power in that section. The market for grey goods, however, is fair.—(Commercial Attache Ralph H. Ackerman, Santiago, August 23.)

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Extra staples, and good 1 1-16 and 1⅛ cotton from Arkansas, Oklahoma, and Texas, and Memphis territory.

The Yarn Market

Philadephia, Pa.—It was a slow week in the cotton yarn market. Buyers held off during the early part of the week after the Government crop report reported a cotton yield considerabably higher than was anticipated. The approach of the Labor Day holiday, with many houses closing from Friday night until Tuesday morning almost brought business to standstill, although some houses kept busy with scattered sales. Prices were generally unchanged for the week, in spite of strong efforts to break spinners' prices following the crop report. Most prices quoted in published lists are for prompt and nearby delivery only, there being no recognized price level for later deliveries.

Inquiry showed considerably improvement in some quarters showing that buyers are interested in further yarn supplies and leading to the belief that a more active market should develop in the next few weeks. Prices for spot delivery showed a slight advance toward the latter part of the week.

It is asserted that the general trade outlook is beginning to inspire confidence in nearly all lines of business. Yarn salesmen have swung from doubtful optimistic, and as they usually reflect rather accurately the views of theirs customers, yarn dealers have begun to show optimism, themselves. On the other hand , it is likely that considerable of the business now being placed, which exceeds in volume the buying witnessed during the last half of July, some say, is being accepted by the dealers at prices which are about equal to the lowest values of the year. In other words, the yarn price list has finally relinquished the last fraction of the ground gained during the sensational recovery movement between July 15 and August 1.

Prices in this market were published as follows:

Southern Two-Ply Chain Warps.

2-ply 8s	41½	a__
10s	42½	a__
12s to 14s	44	a__
2-ply 16s	44	a__
2-ply 20s	45	a__
2-ply 24s	47	a__
2-ply 26s	48	a__
2-ply 30s	49	a__
2-ply 40s	55	a56
2-ply 50s	63	a__

Southern Two-Ply Skeins.

8s	41	a__
10s to 12s	42	a__
14s	43	a__
16s	44	a__
20s	45	a__
24s	47	a__
26s	48	a__
30s	49	a__
36s	53	a__
40s	54	a57
40s ex	58	a60
50s	64	a65
60s	72	a74

Tinged Carpet—		
3 and 4-ply	35	a__
White Carpet—		
3 and 4-ply	58	a__

Part Waste Insulated Yarn.

6s, 1-ply	35	a__
8s, 2, 3 and 4-ply	35	a__
10s, 1-ply and 2-ply	37	a__
12s, 2-ply	40	a__
20s, 2-ply	44	a__
26s, 2-ply	47	a__
30s, 2-ply	48	a__

Duck Yarns.

3, 4 and 5-ply—		
8s	41	a__
10s	42	a__
12s	43	a__
3, 4 and 5-ply—		
16s	45	a__
20s	45½	a46

Southern Single Chain Warps.

10s	42	a__
12s	42½	a__
14s	43	a__
16s	44	a__
20s	45	a__
24s	46	a__
26s	46½	a__
30s	48	a__
40s	56	a__

Southern Single Skeins.

6s to 8s	41	a__
10s	41	a__
12s	42	a__
14s	43½	a__
16s	44	a__
20s	45	a__
24s	47	a__
26s	48	a__
30s	49½	a50

Southern Frame Cones.

8s	40	a__
10s	41	a__
12s	41½	a42
14s	43½	a44½
16s	44	a45
18s	45	a45½
20s	45½	a__
22s	44	a__
24s	45	a__
26s	46	a__
28s	49	a__
30s	47	a48
30s tynig in	48	a48½
40s	56	a__

Southern Combed Peeler Skeins, Etc.

2-ply 10s	55	a56
2-ply 20s	57	a58
2-ply 30s	60	a62
2-ply 36s	60	a65
2-ply 40s	65	a67
2-ply 50s	72	a__
2-ply 60s	80	a__
2-ply 70s	90	a__
2-ply 80s	1 00	a__

Southern Combed Peeler Cones.

10s	52	a__
12s	53	a__
14s	54	a__
16s	55	a__
18s	56	a__
20s	56½	a__
22s	57	a__
24s	57½	a__
26s	58	a__
28s	59	a__
30s	65	a__
32s	65	a__
34s	67	a__
36s	69	a__
38s	70	a__
40s	72	a__
50s	78	a__
60s	85	a__
70s	95	a__
80s	1 05	a__

Eastern Carded Peeler Thread Twist Skeins.

20s, 2-ply	52	a__
22s, 2-ply	53	a__
24s, 2-ply	55	a__
30s, 2-ply	58	a__
36s, 2-ply	62	a__
40s, 2-ply	64	a__
45s, 2-ply	69	a__
50s, 2-ply	74	a__

Eastern Carded Cones.

10s	47	a__
12s	48	a__
14s	49	a__
20s	52	a__
22s	53	a__
26s	55	a__
28s	57	a__
30s	59	a__

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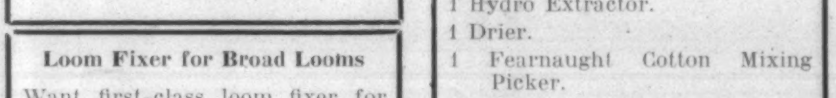

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⅞" WHIRL
STANDARD McMULLAN BLADE
VARYING 2 TO 4 YEARS OLD.
IN FINE CONDITION
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LARGE SUPPLY WARP BOBBINS
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Stauss Rectified Tallow, Oil and Gums for all warp sizing ana finishing purposes

Link-Belt Holds School for Distributor's Salesmen

For years manufacturers have recognized the value of bringing their own salesmen to the home office or factory for a few days' visit and conference each year. Sales conferences and "sales schools" for members of the sales staff are now common practice.

Also, where a manufacturer's product is marketed through jobbers or distributors, many such manufacturers have realized the money value of keeping the distributor's sales staff fully informed regarding changes, talking points or developments made in their products. For the most part, however, this informative work has been carried on by mail—letters, sales bulletins, catalogs, house organs, etc. Several of the larger manufacturers, furthermore, periodically send representatives to the jobber's or distributor's headquarters, where they talk or lecture to the sales staff, answering questions, straightening differences or misconceptions, and educating in general. All this has accomplished much for the mutual benefit of jobber, distributor and manufacturer.

Now, the Link-Belt Company of Indianapolis has adopted a new plan of bringing their distributor's key men to their factory. Here these men may see the product in process of manufacture, listen to prearranged lectures, and become more fully acquainted with general manufacturing procedure, policy and personnel.

The Link-Belt Company allows each distributor to select the salesmen for attendance at this "School on Manufacture," the Link-Belt Company paying all expenses incident to the three-day visit, except the value of that salesman's time.

On August 25-26-27, the Link-Belt Company held such a school at their Ewart works in Indianapolis, under the direct supervision of George Torrence, sales manager. Mr. Torrence was assisted by various department heads from the two Indianapolis plants, S. L. Haines of Philadelphia works and Walter Ostrand from the Chicago plant.

Those in attendance represented fourteen distrbiutors, scattered from Maine to Texas and who specialized in almost every industry. These men (21 in number) toured the factories, witnessed the many processes of manufacture, listened to lectures and talks, stood "roundtable" quizes on subjects of interest, and learned in a general way of Link-Belt policies.

The second day was closed with a fine dinner at the Country Club at which Alfred Kauffmann, president of the company, in conjunction with several other officials, talked. The three-day school closed at 5 p. m., the evening of Wednesday, August 27.

In commenting on the "School on Manufacture," Mr. Torrence said: "We are very much encouraged over the results of this school. Extremely flattering was the interest and keen attention displayed by these men who are not on the Link-Belt payroll. We expect to see an almost immediate response from this schooling in the way of increased volume and number of orders. It is our intention to make this distributor's school an annual affair."

Imports of Cotton Cloth in July Fall

Washington. — Imports of cotton manufactures in July registered a slight increase as compared with figures for the same month last year—$7,329,889, compared with $7,232,715—according to figures announced by the Department of Commerce. Imports of cotton cloths, however, decreased from 15,626,000 square yards to 12,658,000.

The loss was mainly in imports of colored cloths, which fell to 3,830,000 square yards from 8,652,000. Bleached cloths declined to 264,000 square yards from 887,000. Unbleached, however, increased to 8,563,000 square yards from 6,087,000. Cotton gloves increased to 101,990 dozen pairs from 88,787. Cotton hosiery fell off to 35,000 dozen pairs, compared with 50,000. The value of total cotton laces, embroideries, etc., increased to $2,137,700 from $1,231,883.

Raw cotton imports were 3,391,000 pounds, compared with 3,178,000.

Woolen Exports Drop.

Domestic exports of wool manufactures in July were valued at $307,000, compared with $477,000 in the same month last year. Wool cloth and dress goods declined sharply, while there was an increase in wool wearing apparel.

Exports of silk manufactures were valued at $1,104,000 in July, compared with $942,000. Broadsilk, silk wearing apparel and silk hosiery shared in the increase.

Artificial silk manufactures increased to $818,000 from $571,000 in July shipments.

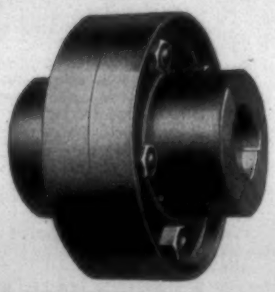
Raw Silk Imports.

Imports of raw silk last month declined, being 4,047,000 pounds, compared with 5,218,000 pounds in July, 1923. Imports of silk manufactures also decreased, being valued at $3,427,000, compared with $3,771,000. Imports of artificial silk declined to 369,000 pounds from 741,000.

Imports of linen fabrics, linen handkerchiefs, linen laces and embroideries increased substantially last month, compared with the same month last year.

New DuPont Color.

The dyestuffs department of E. I. du Pont de Nemours & Co. announces the development of Sulfogene Bordeaux BN, which is said to be more beautiful in shade than the company's previous brands of Sulfogene Bordeaux, while possessing all the properties of the other brands. It is used in combinations for producing browns, cordovans and drabs, but will be especially valuable for use in fancy shades where its brightness will be most evident. It is used practically only for cotton.



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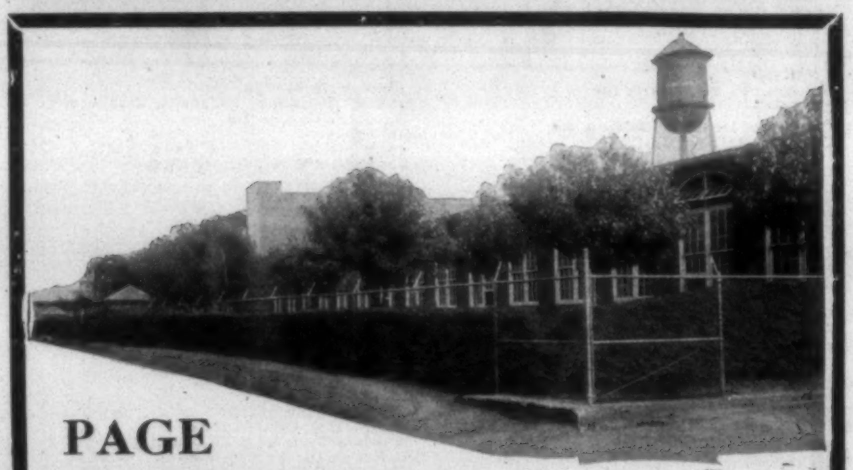

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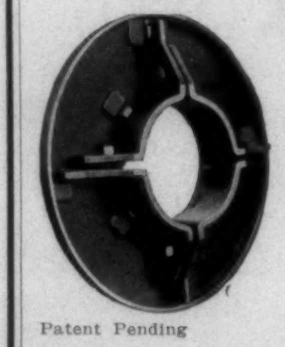

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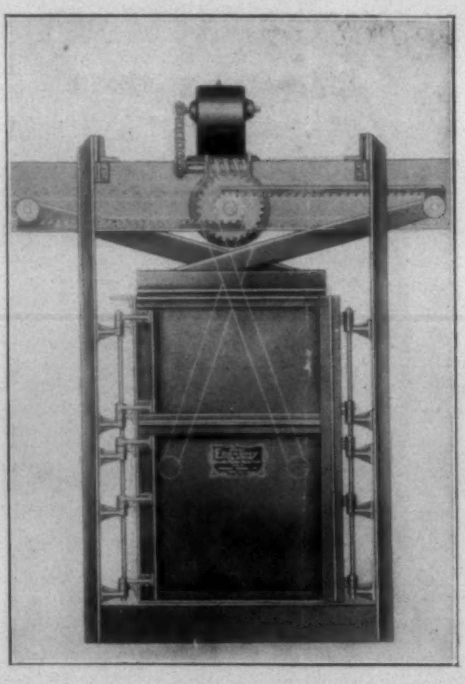

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